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BIHAR AND ORISSA

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1928-29

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SUPERINTENDENT, GOVERNMENT PRINTING,
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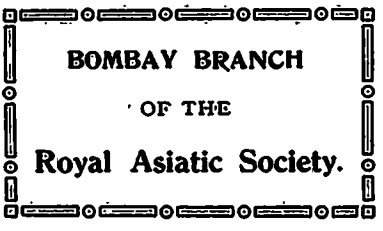

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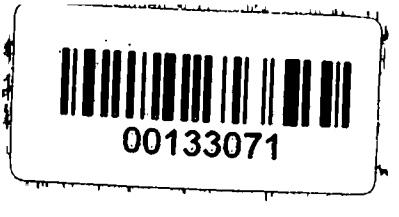
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His Excellency Sir **HUGH LANSDOWN STEPHENSON,**

K.C.S.I., K.C.I.E., I.C.S.

NOTICE.

THE preparation of this book has been entrusted to Mr. C. R. B. Murray, I.P., and it is now published under authority and with the general approval of the Government of Bihar and Orissa, but it must not be assumed that this approval extends to every particular expression of opinion.

PREFATORY NOTE.

THE main portion of this volume deals with the financial year 1928-29, viz., the period from April to March. In order to bring the history of the province up-to-date as far as possible, a short summary of the principal events of the calendar year 1929 is included as an appendix.

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Bihar and Orissa in 1928-29.

CHAPTER I.

Political and General Events.

The history of Bihar and Orissa during 1928-29 is one which, on the whole, affords grounds for considerable satisfaction. The province has continued to make steady progress in every direction and the proceedings of the Legislative Council have, as in the previous year, been carried out, in a reasonable and good-tempered spirit. The visit to the province of the Simon Commission did not occasion the violent demonstrations which occurred in other provinces; though communal disturbances occurred they were not so serious as in previous years; and the labour situation at Jamshedpur, though giving cause for grave anxiety, was not marred by the violence and sabotage in evidence elsewhere in India in similar circumstances.

The Simon Commission.

Political interest during the year centred in the visit to the province of the Simon Commission. The boycott of the Commission had been strenuously advocated for some months beforehand, both on the platform and in the press, but the Legislative Council, after a full debate in the Autumn Session, passed a motion to constitute a provincial committee to co-operate with the Commission. The Muhammadans, who had from the outset been opposed to the boycott policy, were encouraged by the Nehru report to close their ranks and formed a new Muslim Association, which submitted a note to the Commission demanding special representation and half the posts in the services.

The Commission, accompanied by the Committee of the Central Legislature, arrived in Patna on the 12th December. The disorderly scenes which had greeted the Commission in other parts of India were not in evidence in Patna. A crowd of some four thousand demonstrators turned out to meet it, but contented themselves with shouting and waving black flags. The stay of the Commission in Patna was not marked by any untoward incident, though at Dumraon, where some members of the

Commission went for a day as guests of the Maharaja, there was a minor collision between a party of boycotters and a party of welcomers in which the former came off the worse. During their stay in Patna the Commission examined eight official witnesses in addition to the members of the Executive Council and the Ministers, and also received deputations from the Bihar Landholders' Association, the Muslim Association and the Sanatan Dharma Sabha. The Commission left Patna on the 19th December for Calcutta, some of them visiting on the way Ranchi and others the Jharia coalfields.

Visits of His Excellency the Viceroy.

His Excellency the Viceroy visited the province twice during 1928 and once at the beginning of 1929. Towards the end of July he paid a visit to Ranchi, the summer headquarters of the local Government, and thence proceeded to Puri where, accompanied by His Excellency the Governor, he inspected certain areas which are periodically subject to floods. In the month of November His Excellency spent two days in Patna, this being his first official visit to the capital of the province. At both Ranchi and Patna His Excellency received a most enthusiastic public welcome. In January 1929 His Excellency paid a visit to the Agricultural Research Institute at Pusa, and spent a day in inspecting the Institute and Farm.

The communal situation.

Antagonism between the two communities of Hindus and Muhammadans was again a prominent feature of the political landscape during the year, particularly in Bihar. The *Bakr-Id* festival fell in May. Symptoms of trouble, which had been evident for some weeks beforehand, were justified by the event, as serious disturbances occurred during the festival in the districts of Muzaffarpur, Darbhanga and Gaya. In Muzaffarpur the local Hindus, hearing that *Kurbani* was being performed in a house in the village of Simarwara, attacked this and other houses and a mosque, killed one Muhammadan on the spot and severely injured four others. In Darbhanga five Muhammadan houses were looted by a large mob of Hindus and Rs. 10,000 worth of property damaged, and in Gaya encounters between the two communities led to several casualties. The *Muharram* however passed off without serious friction, though in two instances a riot was only avoided by timely police interference.

Later in the year, several anxious situations arose in connection with *Mahabirdal* procession in Saran. Organized

by the *Arya Samaj* to compensate low-caste Hindus for abstention from the Muharram, these processions are intensely irritating to Muhammadans, imitating as they do the procedure and emblems in use at the Muharram. During the last few years they have been taken out on an increasingly large scale, the number licensed in 1928 being considerably more than double that licensed in the previous year. Their continuance is likely to be a source of considerable anxiety in the future.

The *Dasahra* festival was marked by disorderly scenes in the town of Gaya. The Hindus severely assaulted a Muhammadan motor driver whom they suspected of setting fire to one of the *Durga* idols. After the man had been rescued by the police in a car, the crowd assaulted the Superintendent of Police when he attempted to arrest one of the ring-leaders. It was only owing to the fact that the Muhammadans kept strictly to their houses that a more serious disturbance was avoided.

Industrial unrest: The strike in the Tata Iron and Steel Works.

The chief events in the labour world during the year were the strikes in the Tata Iron and Steel Works at Jamshedpur, culminating in their almost complete closure from the 1st June to the 12th September 1928. There had been considerable uneasiness and discontent among the company's labour for some time previously. The chief reason for this was the policy pursued by the company in reducing their staff. The Tariff Board had in their latest report drawn attention to the overstaffing of the Iron and Steel Works and had hinted that the industry could not continue to be assisted at the tax-payer's expense unless a serious effort was made to reduce labour costs. The company thereupon set to work to put their house in order. Reduction in wages being impracticable, it was proposed to effect a gradual reduction in personnel, without discharging any of the men employed, by not filling vacancies as they occurred. A reorganization department was established, which set about to create a standard force and relegate the surplus men to a spare gang, from which future vacancies would be filled; to standardize wages; and to change the basis of pay from a monthly to a daily rate. The employment bureau, however, a separate organization, continued to recruit new men in spite of the declared policy of the company, so that by April 1928 the position was that while resentment and a sense of insecurity were widespread no material reduction in the number of workmen employed had been effected.

This policy, no less than the manner in which it was pursued, caused considerable apprehension, which manifested itself in a

growing spirit of insubordination and indiscipline in the works, a spirit with which the supervising staff were unable effectively to cope owing to their lack of personal touch with their men, and the absence of a representative body of workmen.

A series of sporadic departmental strikes occurred and meetings of the malcontents were held daily, which were noticeable for their denouncements of the local Labour Association. This association had come into being after the strike of 1920 and, after various vicissitudes, had lately been reorganized by Mr. C. F. Andrews, its president, and had been recognised by the company as the official mouthpiece of its workmen. The office-bearers were mainly men who had been conspicuous in the previous strikes but had now risen to well-paid posts in the company, and were no longer really representative of the labour force or in a position to understand their needs. Mr. Andrews, who had been for some days in Jamshedpur negotiating with the company on behalf of the Labour Association, attempted to stem the tide of discontent and called a mass meeting, at which he announced a profit-sharing scheme which the company proposed to institute. Generous though the scheme was, its announcement was received with considerable hostility by the men, whereupon Mr. Andrews left Jamshedpur in disgust.

Shortly afterwards the sheet mill struck work, followed a few days later by the boiler furnaces, a key department. The Labour Association was helpless and the control of the situation passed into the hands of Mr. Manek Homi, a Parsee pleader practising in Jamshedpur and an ex-employee of the company, who from then onwards until the appearance of Mr. S. C. Bose remained the leader of the strike. On the strikers refusing to return to work except on their own terms the management closed down at 24 hours' notice five departments for which power could not be raised owing to the boiler strike, thus throwing more than 2,000 men out of work. Three weeks later Mr. Homi retaliated by calling a 24 hours' *hartal* which was completely successful. This was followed a week later by a 48 hours' *hartal* which was equally successful; and during its course on the 1st June, the General Manager issued a notice stating that it was impossible to operate the works in the face of departmental strikes and weekly *hartals*, and that they would remain closed till further notice. Only those who had worked during the *hartals*, about 2,500 in number, were allowed inside the works.

For nearly a month there was a complete deadlock as the management refused to negotiate with Mr. Homi, and the Labour

Association, having lost the confidence of the men, was practically *functus officio*. At the end of June, the Directors announced the terms on which they were willing to re-open the works. The profit-sharing offer was repeated; any reasonable representation for increase of wages would have consideration; but a reduction of 25 per cent of the men was inevitable and would be persisted in, and no wages would be paid for the period during which no work had been done. The terms were unfavourably received and picketting increased in intensity. The works were nominally thrown open, department by department, during the first half of July but the strikers made no attempt to return.

The deadlock continued, the main problem being to find a channel of communication between the men and their employers, owing to the unwillingness of the latter to deal direct with Mr. Homi, through whom alone the men were prepared to negotiate. First Mr. N. M. Joshi and then Mr. Jamnadas Mehta came to Jamshedpur, but left without improving the situation. Then the Deputy Commissioner attempted to act as intermediary between Mr. Homi and the Directors of the company, two of whom had meanwhile come to Jamshedpur, but with no greater success. Finally at the end of July the Directors issued a further notice making some advances on their previous offer, the chief of which was compensation to the men to be discharged in pursuance of the reduction policy, but adhering to their determination to pursue that policy, though on a smaller scale. The offer was rejected and the strike continued.

After fruitless negotiations by Mr. Homi behind the scenes in Bombay, Mr. S. C. Bose made his appearance and from now onwards became the central figure in the strike. The first result of his visit to Jamshedpur on August the 18th was the spread of the strike to the Bengali supervising and clerical staff and the intensification of picketting, but subsequently he acted as mediator, and after prolonged discussions with the Directors and General Manager he helped to bring about a settlement, which embodied all the concessions previously offered and in addition provided for an arrangement by which the operation of the reduction scheme would be postponed for a year. As regards wages for the period of closure of the works the men acquiesced in the company's refusal to grant this but they received loans to help them to meet the indebtedness incurred during the strike. On these conditions work was resumed on the 13th September. Thus ended a strike which was chiefly remarkable for its freedom from violence, a result which was due, not only to the good discipline

of the police and the fact that they were sent to the spot in sufficient numbers to control the situation from the outset, but also to the forbearance of the management and the effective control of the strikers by Mr. Homi and his lieutenants. The strike involved some 20,000 men and the direct loss to the company has been estimated at over a *crore* of rupees, and the loss to labour in wages at about Rs. 30 lakhs.

Immediately after the strike, Mr. Homi lost no time in taking steps to place his temporary organization on a permanent basis under the name of the Jamshedpur Labour Federation. The company however refused to accord it recognition, whereupon Mr. Homi retaliated by calling another *hartal* in December. This was to all intents and purposes a failure and thereafter Mr. Homi confined his efforts to attracting recruits to his Federation at the expense of the Association, an enterprise in which he met with considerable success. Constant reprisals and recriminations between the two organizations culminated in an attack in February by turbulent members of the Federation on the Association's office. The membership of the Association dwindled rapidly and finally the company consented to recognize the Federation, which had in the meantime been registered by Mr. Homi as a trade union.

Unrest in the Tinplate Company of Golmuri.

Since then the position in the Tata Iron and Steel Works has been comparatively peaceful and the centre of the stage has been occupied by the affairs of the Tinplate Company at Golmuri, a suburb of Jamshedpur. During the Jamshedpur strike the works of the Tinplate Company had to be partially closed, though the Company continued to pay full wages to its employees. After the strike was over, they had been approached by Mr. Homi in the course of his efforts to establish his Federation, but though desirous of forming a labour union they refused to consider its affiliation to the Federation. Shortly afterwards the Tinplate Union was formed and proceeded to formulate a series of demands of a moderate nature which were presented to the General Manager, who promised to give them sympathetic consideration.

The first sign of trouble occurred in January 1929 when a few workmen refused to take their wages on a trivial pretext, a manœuvre which was repeated on a larger scale a week later. The General Manager then closed the works but reopened them two days later, at the same time publishing a notice that work would, in future, be restricted as the company's financial position

was not satisfactory. A meeting of the Union was called at which it was resolved to approach Mr. Homi, and a few days later he was elected president. The men were said to be ready for a *hartal* or strike in the near future and though Mr. Homi was not in favour of precipitate action he gave active help in collecting subscriptions for an emergency fund. After prolonged negotiations with the management, an announcement was made of the grant of very generous concessions, which was on the whole favourably received, though it was obvious that both inside and outside the Union executive there was a militant element which, stimulated by the unexpected outcome of the strike in the Tata Iron and Steel Works, were determined to resort to direct action at all costs.

Matters came to a head at the beginning of April. Shortly before, two men had been discharged for neglect of duty. Attempts were made to smuggle them into the works but without success and the shift to which they belonged struck work. The manœuvre was repeated on the next day with the same result. The men resumed work for a short time but on the 8th of April they all struck work in a body, the immediate cause being a scuffle between some of the workers and the company's watch and ward staff.

The Provincial Press.

Of the 129 newspapers and periodicals published in the province during 1928, no paper had a circulation exceeding 5,000 and only 20 per cent a circulation of 1,000 or over. Only five newspapers of any importance are published in English and there is only one daily paper the 'Express', which after having had to suspend publication in 1927 reappeared in March 1928.

Action was taken during the year against three papers, the "Mukti", the "Searchlight" and the "Tarun Sakti". The editor and the printer and publisher of the "Mukti" were prosecuted under section 124-A of the Indian Penal Code and sentenced to one year and three months' simple imprisonment respectively. The editor of the "Searchlight" was arraigned by the High Court for contempt of court in criticizing the Court's judgment in the Barh Sati case and fined Rs. 500; and the editor, printer and keeper of the press of the "Tarun Sakti" were prosecuted under sections 124-A and 153-A and sentenced, after the close of the period under review, the editor to six months' simple imprisonment, the others to three months' simple imprisonment each. In addition the appeal of the editor of the "Mahabir" who had been sentenced in March 1928 to one year's simple

imprisonment and a fine of Rs. 1,000 under section 124-A of the Indian Penal Code, was finally dismissed by the High Court in July 1928.

The communal situation, the principal theme of discussion in recent years, gave way during the year in point of interest to the Simon Commission. With the exception of the " Express ", the " Patna Times " and one or two vernacular papers, there was a universal outcry, led by the " Searchlight," against the Commission and everything connected with it. Every paper, however, published the proceedings of the Commission in full until the " Searchlight ", following the appeal of the Indian Journalists' Association, excluded all mention of them from its columns. In dealing with communal matters there was an unusual moderation of tone, principally no doubt because, though Hindu-Muslim relations continued to be strained, there were no very serious outbreaks. One paper, contrasting the frequency of communal disturbances since the Reforms with their comparative rarity since the arrival of the Simon Commission, attributed the circumstance to the fresh outlet for the activities of the politicians afforded by the visit of the Commission. Though there were distinct signs during the year of the growth of better feeling towards the police both in the Legislative Council and on the part of the general public, this appreciation was hardly reflected in the tone of the press which remained generally hostile. There was however a general absence of serious criticism, which may be taken as a hopeful sign.

Changes in the Administration.

His Excellency Sir Hugh Lansdown Stephenson continued to be Governor of the province throughout the year. On the 17th April 1928, the Hon'ble Maharaja Bahadur Keshav Prashad Singh, C.B.E., Vice-President of the Executive Council, proceeded on six months' leave and the Hon'ble Mr. J. D. Sifton, C.I.E., was appointed to be Vice-President temporarily. The vacancy in the Council thus caused was filled temporarily by the appointment of the Hon'ble Sir B. K. Mullick, a Judge of the Patna High Court. On the 18th January 1929, the Hon'ble Maharaja Bahadur Keshav Prashad Singh resigned his place on the Executive Council and the Hon'ble Raja Rajendra Narayan Bhanja Deo of Kanika was appointed to succeed him. The Hon'ble Sir Saiyid Muhammad Fakhr-ud-din and the Hon'ble Sir Ganesh Dutta Singh have continued to hold charge of the Transferred departments of Government as Ministers of Education and Local Self-Government respectively.

CHAPTER II.

Finance.

Financial position of Bihar and Orissa.

The financial position of Bihar and Orissa has already been fully explained in previous reports. In order however to grasp the situation in its relation to the financial events of the past year, it is necessary to go briefly over ground already traversed. Of the nine major provinces of India, Bihar and Orissa stands fourth in size of population, being exceeded in this respect only by Bengal, the United Provinces and Madras. At the same time the revenue is lower than that of any province except the Central Provinces, which has a population of less than half, and Assam, with a population of less than a quarter that of Bihar and Orissa. For the sake of convenience the figures are set out in the table below :—

Name of province.	Population in millions.	Revenue in crores of rupees (excluding "extraordinary receipts").	Revenue per mille of population.
Bihar and Orissa ...	34	5·74	1,688
Bengal	46·7	10·93	2,340
United Provinces ...	45·3	12·05	2,660
Assam	7·6	2·82	3,710
Madras	42·3	18·07	4,271
Central Provinces and Berar.	13·9	5·47	3,935
Punjab	20·7	10·65	5,144
Burma	13·2	10·72	8,121
Bombay	19·3	15·79	8,181

Reasons for its poverty.

The figures in the last column show that in proportion to the size of the population the revenue is lower than in any other province in

India. The chief reason for this is the permanent settlement of the land revenue which took place in 1793, when what is now the province of Bihar and Orissa formed part of the Bengal Presidency. This settlement has prevented any appreciable increase in the land revenue, which is the mainstay of other provincial Governments in India, and has had the further effect of removing any hopes of increasing Government resources by large irrigation schemes, such as have been a great source of wealth to other provinces, since the only return Government could look for would be the actual charge for the water supplied.

Not only has the permanent settlement deprived the province of any increase in land revenue but it has also, owing to the adoption fifty years ago of the policy of non-enforcement of mineral rights in permanently-settled areas, prevented Government from deriving, except in Government estates, any revenue from the coal, iron ore, copper ore and other minerals in which the province is so abundant. These mineral resources, in fact, so far from being a source of revenue, have been a considerable source of expenditure. The development of mining in the coalfields and of the iron and steel industry at Jamshedpur have rendered necessary the employment of a more advanced and expensive police administration, to maintain which the industries themselves have contributed nothing in the form of provincial taxation, with the consequence that it has had to be paid for by the rest of the province.

Sources of income.

The provincial revenues being thus straitened by circumstances which existed before the province was even thought of, the local Government have had, since the inception of the Reforms, to explore fresh avenues of income. The imposition of specially heavy provincial taxation has not been within the range of practical politics. The range of taxes open to a local Government is limited and such as there are give little hope of raising any substantial revenue. In a province where 96 per cent of the population live in villages and there is only one large town, there is little prospect of taxing land used for purposes other than agricultural; a succession duty would be likely to meet with strong opposition; and the proceeds of a tax on advertisements or amusements, such as exists in some other provinces, would not cover the cost of collection. In any case, the taxable capacity per head of the population of the province is probably less than in other provinces in India. The pressure of poverty on the inhabitants of the province is indicated by the large extent to which

periodical emigration takes place from the province to other parts of India.

Government have therefore had to fall back on other sources of revenue. That they have succeeded in balancing their budget and at the same time providing sufficient money for the development of the various departments, both reserved and transferred, is practically entirely due to a substantial increase of Rs. 65 lakhs in the Excise Revenue, brought about by the adoption of a policy of maximum revenue combined with minimum consumption. A further twenty lakhs of rupees have been brought annually to the exchequer by increases in the scale of court-fees, but it is obvious that the policy of expansion under these two heads of revenue cannot go much further, except at the cost of an increase in the consumption of liquor and in the cost of justice to the public, both of which are contrary to public policy.

Standard of expenditure.

The standard of provincial expenditure is necessarily limited by the standard of provincial revenue. It has already been shown that the revenue in Bihar and Orissa is lower in proportion to the population than in any other province; the expenditure is equally low. Where the Punjab expends Rs. 5.4 per head of population, Bombay Rs. 8.3 and Burma Rs. 9.1, Bihar and Orissa expends only Rs. 1.8. Though expenditure on education in the province has, since the inception of the Reforms, increased by 61 per cent, on agriculture by 70 per cent, on medical relief by 61 per cent and on public health by 325 per cent, the expenditure in proportion to the population is still, in respect of the first two items, considerably lower than in any other province in India, and in respect of the second two, lower than in any other province except one, the United Provinces in the case of medical relief, and the Central Provinces in the case of public health. Low though the standard of expenditure is, the province has exhausted itself by its effort and a stage has now been reached at which the local Government have found it necessary practically to cease altogether from fresh recurring expenditure. It is becoming increasingly obvious nevertheless that the present low scale of expenditure cannot last, and that Government will presently be forced into fresh recurring commitments, for which they at present have not the means to pay.

Enough has been said to show that the province is in a state of economic anæmia, from which it is not likely to recover until fresh blood has been infused. It follows that very special skill has been required to nurse its resources and to prevent it

from coming to a premature financial end. The budgets of the last few years have been remarkable for the care and prudence with which the meagre finances of the province have been apportioned between the " nation building " and the spending departments, with due regard to recurring and non-recurring expenditure, and the budget for 1928-29 was similar in this respect to its predecessors.

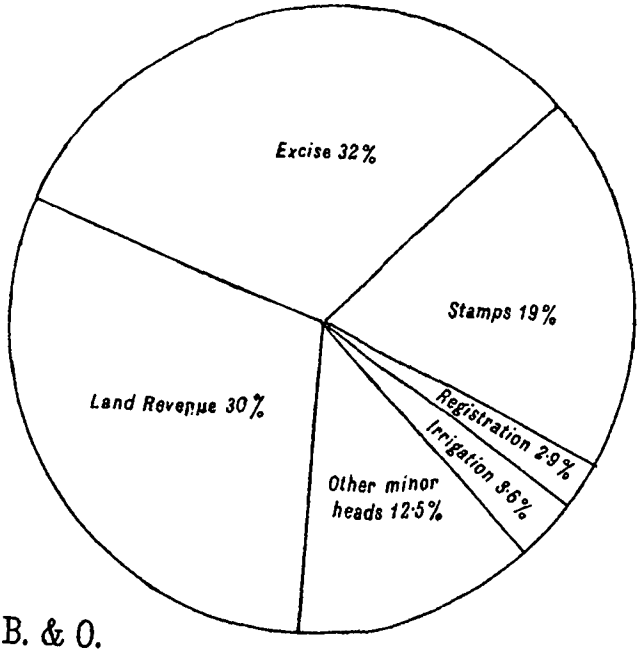
Budget for 1928-29

When the budget was presented in the Legislative Council in February 1928, it was anticipated that there would be an opening balance on the 1st April 1928 of Rs. 165.5 lakhs. Of this, Rs. 69.4 lakhs represented the amount to the credit of the Famine Relief Fund, which could then be utilized only for the relief or prevention of famine, or for loans to agriculturists for relief or similar purposes, leaving a balance of Rs. 96.1 lakhs available for general purposes. The total revenue of the year was expected to amount to Rs. 574.37 lakhs, whereas the expenditure debitable to revenue to which Government were already committed (usually called " first edition " expenditure) was expected to amount to Rs. 572.27 lakhs. This left a margin of only Rs. 2.10 lakhs and it was a question whether that represented an assured margin of safety.

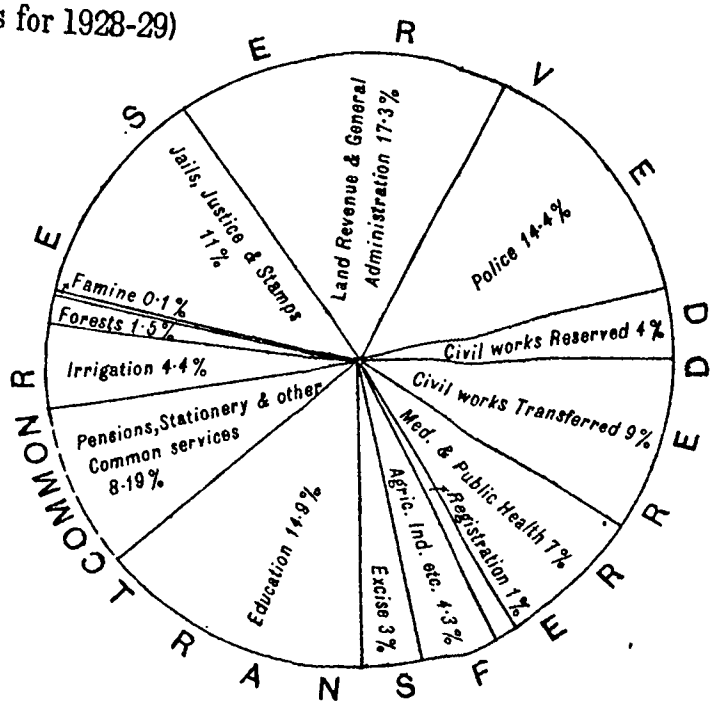
The position when the budget was introduced was that on the one hand excise revenue had, after some years of steady increase, definitely fallen, and land revenue was, for reasons already discussed, permanently stationary. On the other hand, revenue from stamps, registration and one or two minor heads was gradually increasing; Government would be relieved from further assignments to the Famine Relief Fund, the building up of which had been completed; and the repayments which had to be made to the Provincial Loans Account were nearly at an end. Taking these various factors into consideration, the conclusion was reached that, though the margin was small, it was sufficient, but that any large increase in recurring expenditure was out of the question. It was resolved therefore that the sum of Rs. 73,000 marked the limit that could be provided for extra recurring expenditure during the year.

As regards non-recurring expenditure the position was somewhat different. It has already been stated that the opening balance, exclusive of the Famine Relief Fund, was anticipated to be Rs. 96.1 lakhs and that the difference between revenue and " first edition " expenditure was Rs. 2.1 lakhs. The reserve which it was thought proper to maintain was Rs. 75 lakhs, a

Revenue in B. & O.
(Actuals for 1928-29)



Expenditure in B. & O.
(Actuals for 1928-29)



sum which was somewhat lower than the conventional minimum of two months' average expenditure. This left a balance of roughly Rs. 20 lakhs available for new schemes out of which the sum of Rs. 3 lakhs would have to be set aside for unforeseen demands arising during the course of the year. It was finally decided to set aside for non-recurring expenditure during the year a sum of Rs. 15.97 lakhs making, together with the sum set aside for recurring expenditure, a total of Rs. 16.70 lakhs.

Financial position at the end of the year.

.. The situation at the end of the year was distinctly more favourable than was anticipated. On making up the accounts of the previous year it was found that revenue had been more than Rs. 7 lakhs above the amount anticipated, while expenditure had been about Rs. 7 lakhs less. The result was that the actual opening balance on 1st April 1928 was Rs. 180.4 lakhs, including Rs. 70.42 lakhs in the Famine Relief Fund, that is approximately Rs. 15 lakhs more than was calculated when the Budget was presented. On the basis of the revised figures for 1928-29, the Hon'ble Finance Member was able in his Budget speech in February 1929 to anticipate that receipts from revenue would be higher by nearly half a lakh than the amount originally calculated, but that revenue expenditure on the other hand would exceed that anticipated by Rs. 4½ lakhs. Other heads of expenditure were likely to show in some cases an excess and in others a saving. The net result, so far as could be seen, would be that the closing balance was likely to be Rs. 160.72 lakhs, including Rs. 57.10 lakhs in the Famine Relief Fund. The decrease anticipated in the amount to the credit of that fund was the result of a new system introduced for financing loans to agriculturists, which had before been made direct from the Famine Relief Fund, but which, during the year, were made from the Provincial Loans Account, which borrowed for that purpose the surplus amount to the credit of the Relief Fund. Deducting the amount in the Famine Relief Fund, the balance likely to be available at the close of 1928-29 for general purposes was Rs. 103.62 lakhs.

The details of revenue and expenditure under all heads are given in the abstract of the budget for 1929-30 printed in appendix III which shows the budget estimate for 1928-29, the revised estimate at the close of the year and the estimates for 1929-30.

Division of funds between Transferred and Reserved Departments.

As usual, the Transferred departments had the lion's share of the funds allotted for new schemes, though it was not possible, to treat them so generously as in previous years. Of the Rs. 73,000 provided for new

recurring expenditure Rs. 49,000, or 67 per cent, was allotted to the Transferred departments, and of the Rs. 15.97 lakhs provided for new non-recurring expenditure Rs. 8.75 lakhs, or 55 per cent, was allotted to those departments. The division of funds between the Reserved and Transferred departments, is brought out clearly in the two accompanying diagrams. The first shows the total amounts that have been allotted for non-recurring expenditure to the reserved and transferred departments respectively during the past four years; the second diagram refers to recurring expenditure only and shows the ultimate expansion that will result on either side from new projects initiated during the same period. The diagrams need no explanation and show that the "nation-building" departments are not being neglected.

Future outlook.

The position at the end of 1928-29 justified, on the whole, the hopes that had been formed at the close of the previous year of a more favourable financial outlook. A correct relation between revenue and expenditure debitable to revenue had been re-established; an increase in revenue was anticipated during the forthcoming year, in spite of an expected further decrease in revenue from Excise; and the completion of repayments to the Provincial Loans Account and of assignments to the Famine Relief Fund had made it possible to incur, in the future, fresh recurring expenditure on a more liberal scale than during the year just past. It was not however possible to sound too optimistic a note, as the fact remained that though Government might by prudent and economical budgetting contrive to save themselves from bankruptcy, they had not the means to keep pace with the rate of development in other provinces, and would never have those means until a more equitable financial settlement was arrived at.

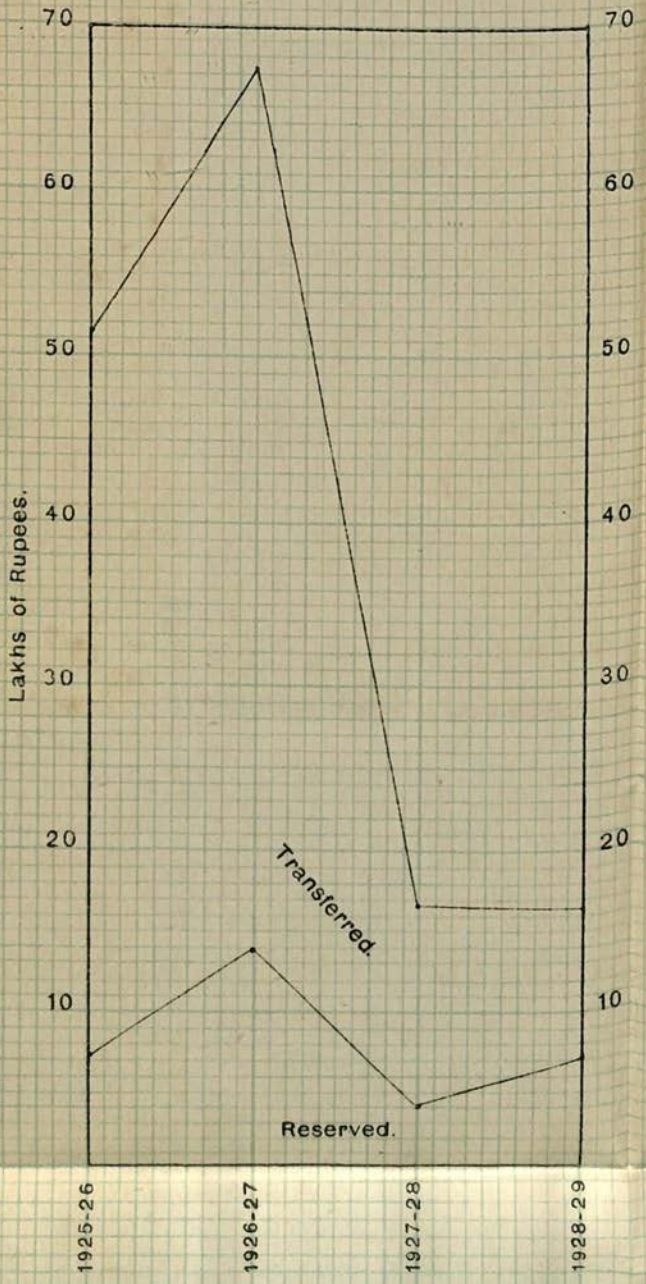


Diagram showing the total amounts that have been allotted to the reserved and transferred departments respectively for new projects during each of the four years 1925-26 to 1928-29.

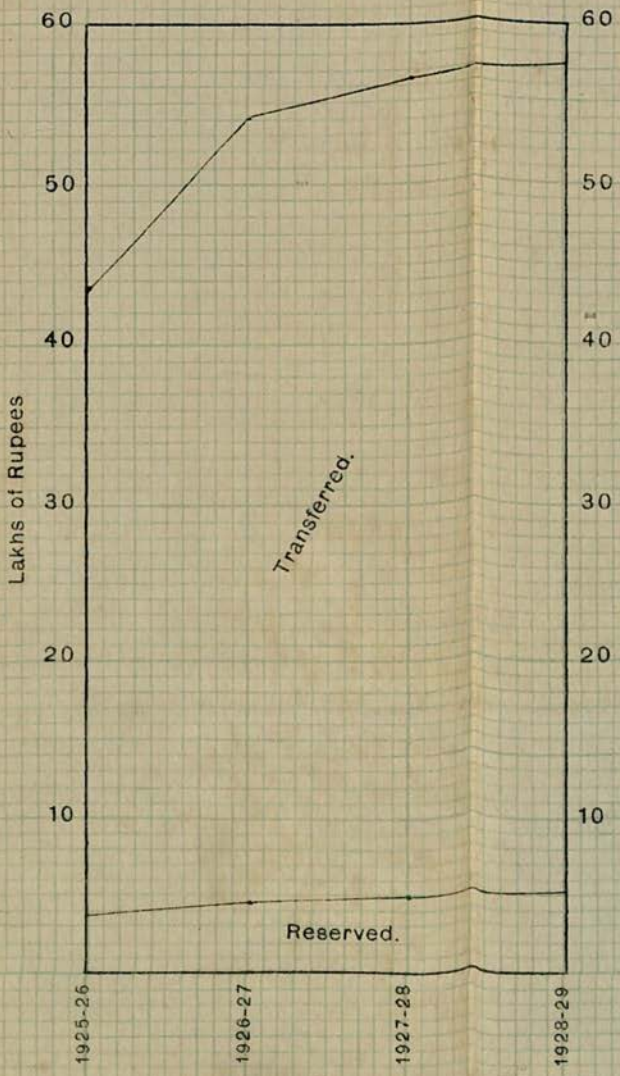


Diagram showing the ultimate expansion in the reserved and transferred departments respectively that will result from the new projects initiated up to the end of 1928-29.

(Recurring expenditure only has been shown.)

CHAPTER III.

The Legislative Council.

Sessions of the Council.

There were two sessions of the Council during the period under report, the first being held at Ranchi in August 1928, the second at Patna in February and March 1929. There were 30 meetings in the course of the two sessions, of which 12 were devoted to non-official business. The Hon'ble Khan Bahadur Khwaja Muhammad Nur and Rai Bahadur Lakshmidhar Mahanti continued to hold office as President and Deputy President respectively.

Legislative measures passed.

Four Bills were passed into law, two during the first session and two during the second. The first of these was the Bihar and Orissa Public Demands Recovery (Amendment) Bill 1927, a private member's Bill which had been introduced in the autumn session of 1927 and referred to a select committee. The Bill as passed provides for the restitution of rights on the reversal or modification of certain orders of a certificate officer. The second Bill passed was the Patna Administration (Amendment) Bill 1928, a Government measure providing for the application or adaptation of the provisions of the Bihar and Orissa Municipal Act of 1922 to Patna, and validating all action previously taken under the Patna Administration Act of 1915. The third Bill was the Chota Nagpur Tenure-holders' Rent Account Bill 1928, which aimed at protecting the interests of sharers in a permanent tenure from sale by reason of the default of their co-sharers. This Bill had a chequered career. Although it had been brought forward unsuccessfully in several previous sessions of the Council, the member for Hazaribagh introduced it once more in the August session of 1928. The Bill had been consistently opposed by Government as unfair to the landlords and administratively unworkable, and its re-introduction was opposed on this occasion because the few changes made by the mover had done nothing to remove these defects. The Council, however, decided to refer the Bill to a select committee, from which it emerged in a modified form, which Government accepted, and the Bill was passed into law during the winter session. The fourth Bill passed was the Chota Nagpur

Tenancy (Amendment) Bill 1927, a Government measure introduced in the autumn session of 1927, which sought to amend the Chota Nagpur Tenancy Act of 1908 so as to facilitate transfer by occupancy raiyats and acquisition by landlords of land required for mining purposes. After examination by a select committee, the Bill came before the Council during the Patna session. It encountered strenuous opposition from the *Swarajist* party on the ground that it was intended mainly for the benefit of European companies, that it interfered unduly with the rights of tenure-holders and that it did not provide adequately for the protection of the raiyat. After a debate which lasted more than two days, in which two amendments were carried against the Government, the Bill was finally passed.

Other Bills.

Thirteen other Bills were introduced, all of them by non-official members. Of these, seven were of a nature affecting one or other of the two communities of Hindus and Muhammadans. Four aimed at providing more adequate representation of the Muslim community in municipalities and district boards by means of a separate electorate, and one, the Muslim Wakf Bill 1928, at providing for the effective control and administration of Wakf properties, and Muslim Public Trusts and institutions by chosen representatives of the Muslim community. The other two were the Hindu Religious Endowment Bills of 1928 and 1929, which sought to provide for the proper control and administration of Hindu religious endowments without interfering with the religious rites and practices of *maths* and temples.

Of the remaining six Bills, four related to tenancy legislature, one to the protection of cattle and one to the amendment of the Local Self-Government Act. The most important was the Bihar Tenancy (Amendment) Bill 1928 which was brought forward on behalf of the landlords in accordance with an arrangement made in the autumn session of 1927, when a similar Bill, the Bihar Tenancy (Amendment) Bill 1927, had been introduced on behalf of the tenants. It was then agreed that the landlords' party in the Council should not oppose the reference of the tenants' Bill to a select committee, while the tenants' party should postpone the formation of a committee until the landlords had produced a Bill embodying their side of the question. The landlords accordingly introduced their Bill in the August session of 1928, and the Council decided to refer it to the select committee to which the tenants' Bill had been referred, so that the two sides of the case for revision or the tenancy law might be presented simultaneously, and a mutually

acceptable measure evolved, if possible. The two Bills, however, offered little basis for agreement. The select committee sat at intervals through the cold weather but had not presented a report when the year ended. A private Bill was also introduced to amend the Orissa Tenancy Act, with the object of facilitating consolidation of raiyati holdings by sanctioning mutual exchange on payment of a nominal registration fee. Government adopted a sympathetic attitude towards the Bill and agreed that it should be referred to a select committee; but their spokesman made it clear that Government expected little practical result from the Bill and apprehended that it might give opportunities for abuse. Raiyats would be able to cheat landlords by concealing sales under the guise of exchanges and so avoid payment of the mutation fee, and the *mahajan* would, by exerting pressure on his debtors, be able to consolidate his own holding by exchanging scattered plots of inferior land with better land held by his debtors. The report of the select committee was presented in the Patna session but it was found desirable to recommit the Bill to the select committee for further examination.

In addition to these Bills, four which had previously been introduced came up for discussion. One was the Bihar Tenancy (Amendment) Bill 1927, of which mention has already been made. Two dealt with district board legislation, the motion to refer them to a select committee being postponed in both instances. The fourth was the Patna University (Amendment) Bill 1927, designed to make the Patna University a teaching University, which after some discussion was circulated for opinion. In addition, three Bills which had been introduced by non-official members lapsed during the period under review.

Questions and resolutions.

The number of questions asked during the two sessions was 618 against 544 and the number of supplementary questions 879 against 569 in the corresponding period of last year. Twenty-four resolutions were moved, of which 11 were adopted, 8 withdrawn and 5 negatived. The most important was a Government resolution, brought forward at the August session, for the appointment of a committee of the Legislative Council to co-operate with the Simon Commission. The resolution was opposed by the *Swarajist* party in full force. The speeches of the opposition were not remarkable for their relevancy to the point at issue, namely whether it would be to the advantage or disadvantage of the province to form a committee but were mainly concerned in an attack on British rule in India from its inception. After a lengthy, but not rancorous, debate the motion was carried by 50 votes to 44, the

Muhammadan members with few exceptions voting solidly with the Government. A committee of seven members was subsequently elected by the Council.

The Salvation Army Dom settlement at Chauterwa, for the susceptibilities of whose inmates the non-official members of Council appeared recently to have conceived a marked tenderness, again came up for discussion in the shape of a resolution proposing the appointment of a committee to enquire into the grievances of the Doms. This, however, was withdrawn after an assurance from the side of Government that they were prepared to arrange for an unofficial visit to the settlement by two members of the Council, who would be at liberty to see all they wanted and form their own conclusions.

A resolution of a sweeping nature, prohibiting the sale of all intoxicants, except for medicinal purposes, during religious fairs and festivals was put forward on the grounds that the sale of alcohol acted as an incentive to communal disorder. This was opposed by the Government spokesman, who maintained that the excessive use of alcohol was not the primary cause of such disorders and that the acceptance of the resolution would impose unfair disabilities on the adherents of the religion not observing the festival. It was pointed out that stoppage of sale would not necessarily stop consumption and that there would have to be a large increase of excise staff to enforce the order. In spite of these objections, however, the resolution was passed by a narrow majority of 4 votes. Among other resolutions adopted, one recommending the non-renewal of the lease of the Bengal and North-Western Railway on the grounds of inefficient service was passed without a division. Another, recommending the extension of judicial powers under the Village Administration Act to union boards of one year's standing, was also adopted without a division, though Government have since made it known that they do not propose to entrust judicial functions to any union boards that have not first established their fitness in other spheres of local activity. Another important resolution, recommending the extension of the franchise to women, was passed by the substantial majority of 47 votes to 14.

Of the resolutions defeated, one proposed that Government should spend one lakh of rupees in the ensuing year in the manufacture and sale of *khadi*, and was defeated by the narrow margin of 4 votes. Another defeated resolution, connected with the adoption of *Urdu* as an optional court script in Bihar was interesting, not so much for its matter as for the manner of its defeat. A resolution in favour of the adoption of the Urdu script had been

passed at a previous session of the Council and opinions on the subject were subsequently invited by Government from the High Court and Bar Associations. The resolution moved on this occasion was that these opinions should be placed at the disposal of the Council for its consideration. This was opposed by the Government spokesman, the Hon'ble Mr. J. D. Sifton, as being unconstitutional. The voting on the resolution was equal whereupon the President, in conformity with Parliamentary principle, gave his casting vote in favour of the *status quo ante* and the resolution was defeated.

A motion for the adjournment of the House was moved during the August session in order to draw attention to the havoc wrought by floods in North Bihar and to discuss the action taken by Government. On an explanation being given, however, of the relief measures taken by the authorities, the mover expressed himself satisfied and withdrew the motion.

Attack on Minister for Local Self-Government.

During the Patna session of the Council, two days were set aside for the discussion of a motion of disapproval of the policy of the Hon'ble Minister of Local Self-Government in superseding the Gaya district board, moved by the leader of the *Swarajist* party. Eighteen months before, the alleged improper use made by the Hon'ble Minister of the power of nominating district board members had been the subject of a similar motion, which was defeated by a large majority. On this occasion the affairs of the Gaya district board were discussed at length and the action of the Hon'ble Minister, which was alleged to have been prompted by personal motives, was vigorously attacked. The accusations were effectively rebutted by the Hon'ble Minister and other Government speakers, and on the house dividing, it was seen that the motion had been lost by 56 votes to 36.

Presentation and discussion of Budget.

One day was devoted to the presentation and explanation of the Budget for 1929-30. It was introduced by the Hon'ble Raja of Kanika, who had less than a month previously assumed the duties of Finance Member. Before entering into details, the Hon'ble Member compared briefly the financial situation of the province with that of other provinces and pointed out that in proportion to its population Bihar and Orissa had the smallest revenue of any, and that expenditure must, as a consequence, be on a correspondingly low level. He was able however to say that the financial outlook was not so gloomy as in the previous year as, owing to an unforeseen reduction in the annual contribution to the

Famine Relief Fund, it was possible to incur fresh recurring charges to a limited amount. The Hon'ble Member claimed that the funds available had been distributed between the different departments and on the various schemes of development as carefully and as equitably as possible. The general discussion on the budget which followed showed that this claim was based on reasonable foundations. While some of the speakers accused the Government of extravagance others accused it of parsimony, and the arguments brought forward practically cancelled each other. One member expressed apprehension at the reduction of the balance in the Famine Insurance Fund, another approval at the liberal grant for flood relief work in Orissa, a provision which would not have been possible but for the money available in the Famine Insurance Fund. One member expressed a wish to take Rs. 10 lakhs a year from the Police budget and devote it to primary education, while others criticized, on the one hand the largeness of the revenue from Excise, and on the other the smallness of that from income-tax and forests. Altogether the criticisms were made in a spirit of reasonableness and of appreciation of the difficulties of Government.

Voting of demands for grants.

Fifty-three motions for the reduction or omission of budget demands were discussed, of which 8 were carried, 14 rejected and 31 withdrawn. All the motions carried were for token cuts. The first of these was to draw attention to the alleged grievances of the tenants in the *Khas Mahal* area of the Daltonganj municipality, and a motion for a cut of Rs. 100 in the provision for Government Estates was carried by a narrow majority of 3 votes. The second motion was raised as a protest against the contemplated revision of the Survey and Settlement operations in Muzaffarpur and Darbhanga, which was stated to be premature, and resulted in a cut of Rs. 100 in the Land Revenue provision. A cut of Re. 1 was made in the irrigation grant in disapproval of the dropping by Government of a scheme for diverting the course of the river Shakri in Gaya, and a cut of Rs. 100 in the provision for Voted Allowances, which was proposed in order to draw the attention of Government to the desirability of altering the rules for travelling allowance of members of Council, was adopted without a division. The demand for the Legislative Council was cut by Rs. 100 in order to ventilate the grievances with regard to pay and allowances of Legislative Council clerks, and that for the Civil Secretariat by a similar amount, on the grounds of the inadequate pay of the Secretariat clerks. The Police budget was let off lightly and only came in for two cuts, each of Rs. 100. One was by way of censure of

the Inspector-General for supporting the action of a Superintendent of Police, who had discharged a constable for disobedience of orders in repeatedly wearing a *tika* mark on his forehead while in uniform. The other cut was in the provision for the Railway police, as a protest against the alleged inefficiency of the Bengal and North-Western Railway Company. Though the mover attempted after discussion to withdraw the motion, he was not permitted to do so by the House and it was adopted without a division.

The fourteen motions for reduction which were either negatived or rejected after a division included four by way of criticism of different aspects of Government's Excise policy. A motion for a cut of Rs. 100 in the provision for the Executive Council, which was put forward to protest against a report recently published by the Executive Council on the working of the Reforms during the years 1923—26 produced a lengthy debate, which resulted in the motion being narrowly defeated by 44 votes to 36. An attack on the system of diarchy by the *Swaraj* party, in the form of a motion to omit the whole of the provision for Ministers, was easily defeated by 47 votes to 29, while a motion to reduce the provision for travelling allowance by the amount allotted for the expenses of the members of the Provincial Committee attached to the Simon Commission was lost by 44 votes to 35. The Maghaiya Doms again came in for attention when a motion was brought forward to reduce the item of Rs. 11,102 for reclamation of Maghaiya Doms by Rs. 10,000, the amount of the Government subsidy to the Salvation Army. In spite of the repeated assurances given on behalf of Government both in the past and on this occasion that no pressure was brought by the Salvation Army on the inmates to embrace Christianity, and notwithstanding the facilities recently given to two members of the Council for inspection of the settlement, the motion was pressed to a division and only lost by 8 votes.

Supplementary demands.

Forty-eight supplementary demands were placed before the Council, all of which were carried except two. One was for Rs. 837, the cost of giving 6 Dom boys of Chauterwa a technical training for five years, the other for Rs. 20,000, the estimated cost of converting the Radium Institute buildings at Ranchi into a Council Chamber and quarters for members of the Council. The former demand was defeated by 6 votes, the latter, which had been put forward to meet the wishes of many members of the Council for a more commodious building, was defeated by 10 votes, the Government members abstaining from voting. A large majority of the demands were carried without a division, though an exception

was made in the case of a demand for Rs. 50,000 towards the cost of the erection of a new Government House at Ranchi. After a somewhat half-hearted debate, which took the form of an attack on the annual hot-weather exodus of Government from Patna to Ranchi, the motion to adopt the demand was carried by a large majority.

CHAPTER IV.

Local Self-Government.

The year under review was the second year of the three years' life of the second group of district boards constituted since the amendment of the Local Self-Government Act. This group of boards has, from the outset, had to face a period of financial stress, following on one of financial prosperity, during which its predecessors, with the aid of large Government grants, embarked on ambitious programmes for the expansion of education and medical aid. Recurring charges expanded to such an extent that the new boards found themselves so situated that, unless Government could increase their recurring grants, or unless they themselves could explore new sources of income, they could expand no further and must, in fact, in the case of some boards, either retrench or run the risk of bankruptcy.

The working of district boards.

During the year Government took steps to impress the facts of the situation on all district boards by issuing a circular, in which the necessity of preparing a careful statement of recurring income and expenditure and of referring to this statement before sanctioning new recurring charges was emphasized. Though this policy of consolidation and retrenchment was one which must inevitably be uncongenial to boards which depend for their popularity on showing results, many of them appeared during the year to have grasped the position and to have explored, though with varying degrees of thoroughness, the possibilities both of retrenchment and of new sources of income in their efforts to restore financial equilibrium. To take a few concrete instances, both the Hazaribagh and Manbhum boards, which were in serious financial difficulties owing to a decline in the coal cess, their chief source of income, appointed retrenchment committees which proposed exceedingly drastic retrenchments in expenditure, to many of which both boards ultimately gave effect, though they showed a tendency to retrench in communication repairs rather than in their more popular activities, such as medical relief, education and water-supply. Some of the North Bihar boards, which had become involved in heavy recurring educational expenditure owing to the irresponsible action of their local boards, effected

retrenchment by closing down schools, while other boards refrained from opening schools and dispensaries, realizing, in time, their inability to maintain them. There were also instances of definite and constructive proposals to tap new sources of income. One chairman advocated the levy of an educational cess and of a tax on bullock carts; others were of opinion that public motor vehicles should be compelled to pay direct contributions towards the development of communications; while two others suggested that the shortage of cash felt by some boards at the beginning of the year might be remedied by the substitution of the calendar for the financial year, with the object of obtaining larger instalments of road cess in the first half of the year.

There is however another side to the picture. The disastrous state of the Gaya board's finances compelled Government to take the drastic step of superseding it. In 1924, the board had had a bank balance of some Rs. 6¼ lakhs and a recurring surplus of income over obligatory recurring charges of about Rs. 2¼ lakhs. By the beginning of 1928, it had immediate liabilities of nearly Rs. 6½ lakhs without funds to meet them, and had had to leave a large number of its capital projects incomplete, with consequent heavy losses in unused materials. A special audit was conducted under Government's orders, which revealed gross and continuous maladministration of the board's funds during the previous four years. The auditor's report was followed by the supersession of the board and of its local boards, and a special officer was put in charge of the board. Thanks to the drastic retrenchments which this officer put into effect by the end of the year and to the aid of a loan of Rs. 4½ lakhs on the security of these retrenchments, the board is now on the way to finding its financial legs again. There can be no doubt however that Government's intervention saved a very serious financial catastrophe.

The administration of the Bhagalpur board has also given Government considerable cause for anxiety. Recent inspection notes revealed a state of chaos in its affairs, reported to be largely due to the inability of the chairman to devote any time to his duties. Prolonged inspection by the Ministry's special inspecting officer has enabled him to help the board to prepare a budget which will just make both ends meet next year if recurring retrenchments of half a lakh are effected. The Balasore board, whose predecessors had brought it to the verge of bankruptcy by diversion of earmarked grants, was still in serious difficulties at the beginning of the year, but saved itself by accepting a budget

prepared for it by the special inspecting officer after Government had made it clear that unless this were done no loan could be given to save it from bankruptcy.

Though district boards have not, on the whole, provided a fruitful field for political activities, two boards were reported to have used primary school *gurus* for political propaganda work, an abuse which cannot but cause grave uneasiness in view of the use of the same agency for the same purpose by many of the predecessors of the present batch of boards. On the whole, however, the spirit of co-operation with Government has shown no signs of diminishing and the inspections made by Commissioners and District Officers have been welcomed and made real use of by the executives. Unfortunately, the services of the special inspecting officer have been temporarily lost to Government since he was deputed to take charge of the Gaya board; but the experience gained of the value of this special post has been most encouraging both to the Ministry of Local Self-Government and to the local bodies themselves and it has been filled again since the close of the year.

Local Boards.

There have been certain aspects of the administration of local boards during the year which give reason for doubt whether sufficient attention has been paid to these boards in recent years. The special officer who took charge of the district board of Gaya after its supersession, detected irregularities in the administration of several local boards, the chief of which were inadequate office supervision, lax control over funds and inefficient administration of primary education. Other irregularities were also discovered in several districts of North Bihar, where local boards were found to have exceeded their budget provision for education, with the result that *gurus* were unpaid and no funds were available to maintain the schools. It is apparent that chairmen of district boards have been finding considerable difficulty in inspecting and controlling local boards, though, as was pointed out by Government to one chairman who applied for a recurring grant to meet a recurring deficit, created by the neglect of certain local boards to observe ordinary prudence in budgetting, local boards are only agents of the district boards with delegated powers, which can be cancelled in the last resort. On the other hand, a non-official chairman is in a difficult position in inspecting the work of the local board executives, depending as he does for his position on a majority vote and knowing that one local board is likely in

opposition to back up another. The result has been that inspections have been infrequent and local boards have largely been left to work out their own salvation.

Union Boards.

The union committees constituted by Government under the Local Self-Government Act have gradually been disappearing since the passing of the Village Administration Act of 1922 in favour of the union boards constituted under that Act. During the period under review, four more committees were converted into boards, leaving only 30 in all, the administration of which is reported to be in many cases stagnant.

The number of union boards working during the year was 148, of which all, except those in the Chota Nagpur Division, i.e., 139 in all, continued to exercise chaukidari powers. Judicial powers were exercised by 81 boards, 57 of which were in the Muzaffarpur district. It is evident that judicial functions were the most popular of those connected with the Act, as in Muzaffarpur alone no fewer than 3,004 criminal and 3,755 civil cases were disposed of by *panchayats* during the year. The tendency to devote more attention to these functions than to the primary duties of village administration in the sphere of public health and education is a matter for considerable regret. Owing both to lack of interest and to lack of adequate funds, little progress was made during the year in administrative work. A few boards ran night schools, two administered compulsory primary education and one board maintained a homeopathic dispensary. But it is significant that district boards did not in most cases even hand over to their union boards the control of primary schools and of the funds spent thereon; and until district boards are better able to afford to give financial assistance to their union boards, or until the amount of taxation which union boards are willing to impose increases, progress is bound to be slow. Except in Muzaffarpur district, where two Sub-Deputy Collectors trained as circle officers in Bengal in the previous year did very useful work, supervision was generally inadequate. Two more special officers are now being trained in Muzaffarpur for similar work elsewhere.

Income.

The total income of all boards during the year, exclusive of opening balances, was about Rs. 1½ lakhs less than in the previous year, mainly due to a large decrease in the cess from collieries and mines in the districts of Manbhum and Hazaribagh, a source of income which fluctuates with the state of the coal market. On the other

hand there were increases in the income from education, medical and civil works. Education showed an increase of $\frac{3}{4}$ of a lakh, due partly to an increase of fees consequent on the conversion of middle vernacular to middle English schools and partly to an increase to Government grants. Medical and civil works each showed an increase of about $\frac{1}{2}$ lakh due, in the case of the former, almost entirely to increased Government grants, and in the case of the latter, to increased receipts from ferries and from the sale of roadside trees, as well as increased grants. The progressive increase in the amount of Government grants since the formation of the province was commented on last year, when it was shown that grants for education had increased from an average of Rs. 7,38 lakhs in 1912—15 to Rs. 21,67 lakhs in 1924—27, and medical grants in the same period from considerably less than $\frac{1}{4}$ of a lakh to Rs. 5,49 lakhs. Owing however to financial stringency no further large increase in these grants from provincial revenues is likely to be practicable in the near future.

Expenditure.

The total expenditure decreased from Rs. 1,60,31,000 to Rs. 1,52,29,000, i.e. by about Rs. 8 lakhs. It was distributed between the main heads as follows :—

Head.	1928-29 (in thousands of rupees).	1927-28 (in thousands of rupees).	Percentage f total expenditure in 1928-29.	Percentage of total expenditure in 1927-28.
Primary education ...	44,48	43,44	29·2	27·09
Medical relief and sanitation.	20,25	19,36	13·3	12·08
Civil works ...	61,91	70,63	40·6	44·06

These figures show a further development of the tendency, which has been so marked in recent years, to increase expenditure on the first two heads at the expense of the third.

The total expenditure on education increased by a lakh. It is significant, however, that while non-recurring expenditure on school buildings fell by Rs. 2,71 lakhs there was an increase, shared by all classes of schools, of no less than Rs. 4,84 lakhs in recurring expenditure on salaries. This large expansion of recurring educational expenditure has been undertaken by many boards without a strict examination of their capacity to maintain it, with the

result that several have had to make heavy retrenchments in their educational programmes in order to save themselves from bankruptcy. The same has been the case with expenditure on medical relief, which shows an increase of rather less than a lakh. Many boards have had to make big cuts in recurring medical expenditure, and have had to abandon projects for the opening of new dispensaries until their financial position is stronger.

Though expenditure on sanitation showed only a nominal increase, most useful work was done during the year by the public health organizations of district boards, particularly in disinfecting wells and dealing with epidemics and, in some districts, in cholera inoculation and in quinine treatment for malaria. In one district a motor-lorry was employed, equipped with medicines for epidemic relief work, and two clinics were maintained for outdoor treatment of lepers; in two others village health societies were started; in others propaganda work was carried on by means of lectures and lantern slides; and in all districts sources of water-supply were disinfected and useful work done at *melas*. During the year Government were able to make a recurring grant to meet half the cost of the public health staff of two additional boards, which brings the number assisted in this way to five.

Expenditure on vaccination also showed a slight increase. The introduction of compulsory primary vaccination into rural areas has been under consideration by Government, who offered during the year to hand over control of vaccination to all district boards employing approved health staffs and to give them the loan of their vaccination inspecting staff under certain conditions. Arrangements on these lines were made at the close of the year in the Patna district, where compulsory primary vaccination is in force. Veterinary expenditure, which had decreased slightly in the previous year, increased by nearly half a lakh, from Rs. 2,44 to Rs. 2,89 lakhs. There were encouraging signs of the increased popularity of veterinary work among the cultivating classes, who are gradually realizing the economic value of the inoculation of their cattle against disease.

Expenditure on civil works showed a fall of nearly Rs. 8¾ lakhs, largely due to decreased expenditure on buildings, original communications and repairs to communications. Though a decrease of expenditure was inevitable owing to shortage of funds, there is no doubt that the sum spent on repairs to communications was very inadequate, in spite of which it was disquieting to find that 77 miles were added during the year to the length of metalled

roads, 376 to the length of unmetalled and 414 to the length of village roads maintained by district boards. The rapid increase in the popularity of motor buses has forced most district boards to realize the importance of communications, and applications have been made by several for loans to improve them. The question of ways and means for meeting the need for more money has engaged the attention of Government, who have come to the conclusion that the most satisfactory way to raise revenues for the development of communications is to impose a provincial tax on motor vehicles of all kinds including lorries. A bill to effect this object has subsequently been published for criticism. Expenditure on water-supply decreased by over Rs. 2 lakhs. Few boards had funds of their own to spare and most of the money spent came from accumulated Government grants earmarked for the purpose.

Campaign against water hyacinth.

During the year a concentrated effort was made to eradicate water hyacinth in the three Orissa coastal districts. Government made small grants to the district boards for the purpose; but it was realized from the outset that it was organized administrative action alone which could succeed, with the legal sanction afforded by the issue of warning notices under district board by-laws. The areas mainly affected were located; and the campaign was vigorously prosecuted by the district officials, headed by the Commissioner of the division, and aided by the district boards. It achieved remarkable results. By the end of the year, some three-quarters of the total area of 14,000 acres choked by the weed in the Cuttack district and several hundred acres in the other two districts had been completely cleared, and the cultivators and landlords had begun to realize that the work was well worth doing in their own interests. Tanks were, often for the first time in living memory, restored to use, either as fisheries or as a source of water-supply; while in some cases land was made available for growing paddy crops. There are good grounds for hoping that if the impetus given to the campaign by the Commissioner is continued for another year complete success will eventually be attained.

Closing balances.

Closing balances including deposits fell from Rs. 44 92 lakhs to Rs. 35,03 lakhs, i.e. by nearly Rs. 10 lakhs, following on a decrease during the previous year of nearly Rs. 16¼ lakhs, and excluding deposits fell from Rs. 36,32 lakhs to Rs. 26,89 lakhs, of which one-third consisted of unspent earmarked Government grants.

Boards continued in their budgets to provide for the full expenditure of these grants, but were frequently unable to spend the money. One board which budgetted for an unspent balance of only Rs. 11,000 actually had more than one lakh unspent at the end of the year: another spent less than half the grants budgetted for; and there was considerable delay almost everywhere in spending grants for primary school buildings. Though balances were, in all cases, considerably in excess of the prescribed minima, these minima are admittedly much too low, and were fixed long ago when neither the income nor the recurring charges of district boards were nearly as high as they now are. The necessity for increasing the minimum closing balances is under Government's consideration.

Audit of district boards.

Audit reports of district boards again emphasized the failure of finance committees to shoulder their important responsibilities and criticisms were, as usual, made of irregularities in calling for tenders and giving out contracts, and in connection with the rush of payments in the last few days of the financial year. In one board, 500 bills were passed on the last day of the year and cheques amounting to nearly Rs. $1\frac{3}{4}$ lakhs were not presented for payment owing to their late issue. On the whole, however, audit notes were less critical than in the previous year, and there was, except in the case of the Gaya district board, no complaint of lack of co-operation between the executives of district boards and the Audit Department.

Municipalities.

The past year, like its predecessors, has been marked by few developments in municipal administration, the comparative stagnation of which is in this province fundamentally due to poverty. The chief sources of taxation are not sufficient to finance the capital cost of large projects, nor can municipal revenues ordinarily be expanded sufficiently to provide adequate security for large loans. Efficiency requires a highly paid staff, which municipalities in the province are not able to afford. Finally, the class of wealthy and leisured men whose social position places them above party factions, such as are generally found at the head of municipal affairs in wealthier countries, is in this province very small indeed; nor even when available are they always willing to undertake the thankless task of administering a municipality which is too poor to produce spectacular results, and whose commissioners are more inclined to fetter the discretion of their office bearers than to support a chairman who is willing to court unpopularity by efficient tax collection and by a firm administration. The only

permanent remedy for such a state of affairs is the growth of a healthy public opinion; and there are indications of such a development in one or two of the larger towns. In some of the smaller municipalities, so far as their inadequate funds permitted, useful work was done.

Income.

The total income during the year, excluding opening balances, rose from Rs. 35.69 lakhs to Rs. 36.47 lakhs. The chief increases were under the heads of grants (+Rs. 1.05 lakhs); loans, advances and deposits (+Rs. 1.37 lakhs); and taxes including realizations under special Acts (+Rs. .41 lakhs). Under the latter head the individual fluctuations between last year and the previous year were in general small, but the following figures, giving the average income from taxation in triennial periods since the formation of the province, show a marked and steady increase, which has been maintained during the last triennium :—

	Triennial average, 1911—14.	Triennial average, 1914—17.	Triennia average, 1917—20.	Triennial average, 1920—23	Triennial average, 1923—26.	Triennial average, 1926—29.
1	2	3	4	5	6	7
Tax on houses and lands.	5,50	6,36	7,58	8,13	9,41	10,55
Tax on animals and vehicles.	1,29	1,30	1,37	1,43	1,93	2,27
Tax on professions and trades.	25	26	28	27	40	47
Water-rate ...	55	1,15	1,32	2,14	2,52	2,99
Latrine rate ...	2,90	3,30	4,38	5,15	5,94	6,80
Total of rates and taxes.	13,56	15,30	18,14	20,90	23,40	26,35
Total non-tax income.	2,56	3,77	3,81	3,63	5,06	5,74
Total income excluding grants.	16,12	19,01	21,95	23,93	28,46	32,43

The incidence of taxation per head of the population, which rose from Rs. 1-2-8 in 1912-13 to Rs. 2-1-8 in 1927-28, rose still further to Rs. 2-2-4 during the period under review. In spite of this increase however, there are indications that the existing sources of taxation might reasonably be made to yield a larger income. For instance, the income from the tax on holdings might be increased by a more frequent and methodical revision of the assessment; there is no doubt that many motor vehicles escape municipal taxation; cart tax could yield a much larger sum if its realization were more effectively supervised; and the latrine rate, which generally falls below the expenditure debitable to it is, in many towns, considerably below the minimum rate of 7½ per cent. of the annual value of holdings.

Expenditure.

The total disbursements increased from Rs. 39.69 to Rs. 42.25, the increase being distributed under most of the main heads. The main increase was under 'conservancy' and was chiefly due to the necessity of paying increased wages to the conservancy staff. Educational expenditure, which had increased from Rs. 2.41 lakhs to Rs. 3.86 lakhs during the past three years, rose to Rs. 3.95 lakhs in the period under review. Unlike the case of district boards, there has been practically no change in the details of distribution of expenditure since the Reforms.

Collection of municipal taxes.

Collections of municipal taxes continued to be unsatisfactory in the year under review. The total arrear demand rose from Rs. 5.20 lakhs to Rs. 5.58 lakhs and outstanding balances from Rs. 6.04 lakhs to Rs. 6.66 lakhs. There were five towns which ended the year with arrears amounting to more than half the current demand; two with arrears in the neighbourhood of half that demand; and 26, as compared with 23 in the previous year, whose arrears exceeded one-fifth of the demand. There is no doubt that the reluctance of most municipal executives to execute distress warrants for the realization of arrears and their tendency to have recourse instead to the slower and more expensive procedure of the civil courts has been taken full advantage of by the tax-payer; and until more executives are found who are prepared to apply ordinary business methods to the collection of taxes and to face the unpopularity of which every ratepayer knows they are afraid, there is little hope of progress. That efficiency in tax collections is not impracticable is shown by the fact that in eight towns the arrears at the end of the year amounted

to less than 5 per cent and in eight others to less than 10 per cent of the current demand.

Municipal audit.

The Audit Department report shows five municipalities with liabilities exceeding their assets and six whose cash balances were less than the amount of earmarked Government grants outstanding. Two municipalities were the subject of severe comment, one for the deplorable state of its finances generally, the other for the chaos in its collection department which had resulted in embezzlement and general maladministration. In general, the main defects were the same as in previous years, namely poor account-keeping, lack of supervision over the accounts and over-lenience in the remission of taxes. Criticisms were also directed against the indifference displayed in the collection of miscellaneous fees, an instance being given of one small municipality which had in the last four years allowed its miscellaneous taxes to decrease by 30 per cent through sheer neglect. Government have recently instituted a Local Bodies Accountants' Examination, intended to help municipalities and district boards to employ accounts clerks qualified by passing a simple test. It is hoped that by means of this examination the standard of account-keeping will gradually be improved.

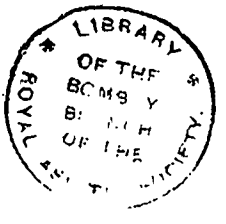
Outdoor administration.

As in the previous year, eight municipalities maintained pipe water-supplies. Though no new supply was started a considerable amount of work was done in reorganizing existing supplies and an important scheme for a pipe water-supply to Puri was brought within measurable distance of fruition by successful tests of the source of supply. An outline scheme and detailed estimates have subsequently been completed. The scheme will be financed by a terminal tax which has been levied for several years for this purpose. The maintenance of waterworks was again defective, largely owing to lack of attention to business methods on the part of waterworks committees. The only really successful waterworks was that administered by the Patna-Bankipur Water Board, presided over by the Superintending Engineer, Public Health Department.

The conservancy arrangements of most municipalities continued to be inadequate owing both to poverty and to lack of effective supervision. The result has been that in many instances, though plant has deteriorated, there is no depreciation

fund for replacements. Often too, the conservancy staff seriously neglect their work and have become out of control. Sewerage systems are beyond the means of most municipalities and the majority cannot afford to employ a well-paid and qualified health officer for outdoor work. The Legislative Council voted the salary of a special engineer to prepare a sewerage scheme for the west end of Patna City at the close of the year.

The state of municipal roads was again the subject of adverse comment by inspecting officers; and though there was an improvement in those maintained by the Patna municipality there are very few towns which maintain even their stretch of main communication roads adequately, while there are none which seem able to effect much improvement in their by-lanes and smaller streets, or to improve their congested areas. Motor lorries were used in a few municipalities for watering roads, but these lorries are not yet generally run on economical business lines, and bullock driven carts have often still to be kept in reserve. In general, lack of adequate supervision as well as lack of funds was responsible for the defects in this, as in other, branches of municipal administration.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CHAPTER V.

Education.

General expenditure on education.

Educational progress received a distinct check during the year owing to the serious financial position of Government. The total expenditure on education decreased by Rs. 6¼ lakhs, against an increase of Rs. 9¼ lakhs in the previous year and an average increase of nearly Rs. 19 lakhs during the preceding few years. An examination of the different sources of expenditure shows that while expenditure on fees increased by over Rs. 2½ lakhs in comparison with the previous year's figures, expenditure from Government funds, exclusive of grants to local bodies, decreased by nearly Rs. 6 lakhs and that from local bodies' own resources by Rs. 3 lakhs. The decrease in Government contributions was due, as has been said, to financial stringency, the decrease in the resources of local bodies to causes which are discussed more fully in the succeeding paragraph.

Progress of primary education.

In order adequately to appreciate the situation with regard to primary education during the period under review it is necessary to recapitulate very briefly the educational events of the past few years which have led up to it. The necessity of taking steps to improve the illiteracy of the masses, which in Bihar and Orissa is proportionately greater than in the rest of India, was early realized by the Bihar and Orissa Government, and in 1916 local bodies were called on for programmes for the expansion of primary education. In 1919, the Bihar and Orissa Primary Education Act was passed, enabling compulsory primary education to be introduced with the sanction of Government, on the application of local bodies. In 1920, the programmes submitted by local bodies were finally approved, but it was not until 1923 that sufficient funds were available for substantial grants to be made to enable them to be carried out. In 1924, fresh programmes were called for, which were discussed at a representative conference in 1925. In the meantime, there had been a large increase in the amounts

of Government grants for educational purposes, which continued up to the year preceding that under review. The major portion of these grants was devoted to primary education, with the result that there was a large increase in the number of primary schools and in the number of pupils attending them. Between 1923 and 1928, the number of primary schools for Indian boys increased by close on 5,000, while there was an increase in the number of pupils attending them of not far short of a quarter of a million.

Control over primary education.

This process of expansion of primary education, however, received a very definite check during the year under review. Though direct expenditure from public funds rose from Rs. 60.94 lakhs to Rs. 62.16 lakhs the number of primary schools for Indian boys fell from 27,900 to 27,037, a decrease of 863, and the number of pupils attending them from 898,218 to 876,349, a fall of 21,869. The decline was confined to pupils in the infant class, the number of whom fell by nearly 40,000, while every other class showed an increase, from which it was apparent that it was the "venture" school which suffered most. This marked decrease was chiefly due to the fact that district boards, which had been encouraged by increasingly large recurring Government grants in the past to launch out on a programme of educational expansion in the hope that the increases would continue, found themselves under the necessity of effecting heavy retrenchments as soon as they realized that, owing to the financial position of Government, the continuance of the increases was not possible. No less than fourteen district boards had, during the year, to reduce the number of managed, aided and stipendiary schools, while ten district boards could not afford to pay to *gurus* even the minimum rates prescribed by Government. In addition, many boards had at the end of the year heavy undischarged liabilities, in most of which they had become involved owing to lack of ordinary financial prudence on the part of their local boards, arising largely from lack of control by district boards themselves. One local board, for instance, which had overspent its allotment by more than Rs. 3,000 in the previous year, again overspent it by Rs. 6,719 in the year under report; another local board was unable to make any payments at all in respect of the stipends due to teachers for the fourth quarter of the year; while another had a liability of Rs. 42,000 in respect of stipends due for the third and fourth quarters which it had to pay from its next year's budget. Another factor contributing to the decrease in the number of primary schools was the continuous increase in the cost of existing schools, due largely to the increase

in the number of trained teachers. This serious position is not likely to improve until either district boards seriously realize their responsibility for primary education and exercise a closer check over the affairs of their local boards, or until more funds become available.

Compulsory and free primary education.

Compulsory education continued to be in force in one municipality, namely Ranchi, and four rural areas, one in Cuttack, one in Gaya, and two in Saran. The system on the whole worked satisfactorily, though in Ranchi the percentage of attendance decreased and in one of the Saran areas the number of exemptions was unduly high. On the other hand free education, without compulsion, which was in force in one or two municipalities and rural areas, made little headway. In one municipality there was no increase in the number of pupils and in another a fall. In Saran the progress since education was made free has been no greater than that of other districts where fees are charged, though it is reported that the long-standing customs of the villages, by which unofficial contributions, either in cash or kind, are made to *gurus*, have prevented education in this district from being really free.

Curriculum of primary schools.

The curriculum for primary schools remained as before. A new curriculum was published and circulated during the year, the criticisms on which are still under examination. Further progress was made with the scheme for teaching practical agriculture in the schools in Angul and in teaching eri-culture in Cuttack.

Primary school buildings.

It is unsatisfactory to note that very little progress was made during the year in the erection of primary school buildings. Though many buildings were urgently required, only two district boards fully utilized the liberal grants made by Government for this purpose in 1925-26 and 1926-27. The delay was in some cases due to the general financial position of district boards, but was in most cases caused by unnecessary delay in the selection of sites.

Stagnation.

One of the most difficult problems connected with primary education is that of stagnation, that is to say the waste of educational effort which results from the fact that large numbers of children never get beyond the infant class and therefore do not learn to read and write. For instance, in 1926-27, of the total numbers attending primary schools more than 60 per cent were in the infant class. This stagnation is due to a variety of causes, the chief of which is the habit of

children taking admission to the schools at any time of the year instead of at the beginning of the scholastic year. The consequence is that the lowest class consists of children at many different stages of mental development and the teacher finds it impossible to deal with it as a teaching unit. Another reason is the extremely poor standard of teaching. Not only are there too few teachers to cope adequately with the large classes, but the method of teaching, inducing as it does the memorizing of words rather than the formation of ideas, is such as to create intellectual bad habits at the outset. It is from the poor results shown by this system of teaching that the indifference and lack of interest on the part of parents, usually considered to be at the bottom of the evil of stagnation, probably spring, and it is not likely that until children are instructed on more intelligent lines the attitude of their parents will change.

The problem is one which has engaged the serious attention of the educational authorities and a revised curriculum for primary schools is under consideration. As an example, however, of what has already been accomplished, as the result of four years' concentrated effort to compel teachers to attend to beginners from the outset, the following figures, supplied by the Agency Inspector of Schools in the Orissa Feudatory States in respect of 491 primary schools in those States, are of considerable interest :—

Year.	Boys reading in Class I.	Boys reading in Class II.	Boys reading in Class III.	Boys reading Class IV.	Total.
1922 ...	13,899	3,133	2,397	1,957	21,386
1927 ...	10,270	6,272	4,737	3,478	24,757

It will be seen that, whereas in 1922 the number of pupils in class I was 65 per cent of the total number (a proportion which corresponds with that given at the beginning of this paragraph in respect of all the schools in the province), by 1927 the number reading in that class was only 41 per cent of the total. In spite of an increase of 16 per cent in the total number attending, the number reading in class I decreased by 26 per cent while the numbers in classes II and III were doubled and the number in class IV increased by 78 per cent. The centre of gravity of these schools is thus shown to have moved markedly forward and the number of boys receiving the minimum education has been doubled. Moreover, the larger number of boys annually passing out of class IV had, as a general rule, taken only four or five years to complete the course instead of seven or eight, as in the past; and it should not be forgotten that the elimination from primary schools of the boys of thirteen and fourteen now so often seen in those schools is likely to render parents

more willing to send their girls to boys' schools, and so to help forward the education of girls also.

Secondary education.

Including middle vernacular schools, the total number of secondary schools of all classes for boys and girls, both Indian and European, rose from 778 to 822; the number of pupils increased by 10,487 and the direct expenditure by Rs. 2.14 lakhs. The figures are in marked contrast to those for primary schools. The number of Government high schools remained twenty-four, while the number of aided high schools rose from 85 to 90. The increase however involved no extra expenditure from public funds, as the cost was met by reducing the grants to schools which had a rising income from fees and therefore needed less.

There was an increase in the number of middle English schools from 391 to 426, while the number of middle vernacular schools remained almost stationary. The number of middle English schools managed or aided by local bodies or by Government, which had risen from 276 in 1926-27 to 332 in the subsequent year, rose still further to 363 last year. This increase was due to the conversion of middle vernacular schools into middle English schools, a process which proved both popular and economical. It has been calculated that the average cost of the 363 middle English schools to public funds was Rs. 978, whereas for 212 middle vernacular schools the figure was Rs. 1,355. In other words the cost to public funds of maintaining the present number of middle English schools is no greater than that of maintaining 263, or one hundred fewer, middle vernacular schools. The difference in cost is entirely due to the higher fees charged in middle English schools.

A difficult problem has arisen from the extension of the middle school certificate examination to middle English schools, one result of which has been to deplete the upper classes of middle schools, owing to the fact that the examination is stricter than that for promotion held at high schools. The problem is under consideration by the committee appointed by Government to consider the deterioration of matriculates.

Good reports have been received of the experiments which are being tried in the way of introducing vocational training in middle schools. Five schools conducted classes in carpentry, five in agriculture, seven in tailoring and two in weaving. It is unfortunate, however, that the extension of the experiment is not likely until more funds materialize.

The buildings of many middle schools continued to be poor and their accommodation inadequate. The desire for such schools is so strong that it is probable that, if district boards cannot afford to meet the total cost of erecting new buildings, a share at any rate of the cost would willingly be provided by the people themselves if local bodies would exert themselves to obtain contributions for the purpose.

The use of the vernacular as the medium of instruction in the high school stage.

In response to a widely expressed demand on the part of public men and experienced teachers, an interesting experiment has been made during the past four years in teaching students in the vernacular up to the matriculation standard. This demand is in curious contrast to the strong desire on the part of parents, and of pupils themselves, for English teaching close to their homes, which has resulted in the conversion of so many middle vernacular schools into middle English schools.

The first examination of pupils taught throughout in the vernacular up to the matriculation standard was held at the end of the period under review. The results have recently been published and are of considerable interest. The experiment resolved itself into three parts. In the first place, in eleven Government high schools one section of each of the four upper classes was taught in the vernacular spoken by the largest number of boys, while the other section continued to be instructed in English. Secondly, all privately-managed schools, both aided and unaided, were granted the option of introducing one of the four vernaculars as the medium of instruction in the four upper classes, if this could be done without prejudicing the interests of minorities. Thirdly, an experiment was made in certain schools, other than Government high schools, to see how far it was possible for one teacher to teach a class through two vernaculars at the same time. In all these cases, the vernacular was introduced as the medium of instruction in all subjects except English and Mathematics.

The first experiment produced inconclusive results. There was in the first instance some difficulty, which is now disappearing, in obtaining the necessary text-books. In a few schools, the vernacular sections of classes had to be abandoned, owing either to their unpopularity or to the expense involved in duplicating classes. In practically every case, the English section was larger than the vernacular and in some cases the disparity was great, though allowance has to be made for prejudice against the experiment on the part of parents on the ground that it was new. On the other

hand, the vernacular medium was reported to be definitely more popular at four schools. The results of the final examination were also inconclusive. Out of 149 pupils in the vernacular sections, 92 passed the examination and out of 326 pupils in the English sections, 198 passed, so that the percentage of success was almost exactly the same, though again it cannot be assumed that the standard of marking adopted by the English and the vernacular examiners was exactly uniform.

The second portion of the experiment was only tried at a few schools, of which St. Columba's Collegiate School at Hazaribagh is the most important. The vernacular chosen for instruction was Hindi and the attempt to teach Urdu and Bengali-speaking pupils through the medium of that language was a failure, though pupils speaking those languages were given the option of answering questions in their own vernacular. The chief reasons for the failure were the difficulties experienced in obtaining the same text-book in all three vernaculars and in finding teachers who were acquainted with all three. Further difficulty was also experienced in explaining the facts of English History and of Geography in Hindi and it was found that pupils instructed in the vernacular definitely lost ground in English.

The third experiment was only seriously tried at three schools, where attempts were made to teach in Urdu and Hindi simultaneously. The attempt, however, was abandoned at one school owing to the difficulty of securing sufficient teachers able to instruct in two vernaculars and of obtaining exactly corresponding text-books. Similar difficulty was experienced at another of the schools, though at the third the vernacular section is said to have been popular. Until bilingual teachers and text-books written in a dialect common to both Hindu and Muhammadan boys can be provided, this portion of the experiment has little chance of success. All three experiments, however, are to be continued for two years more.

University and collegiate education.

The long-standing question of the control of the Patna University over the colleges at Patna was settled during the period under review. A Bill designed to give the University special powers over the colleges at Patna had been discussed in the August session of the Legislative Council and circulated for opinion. On receipt of opinions the Bill was again discussed at the February session, when a motion to refer it to a select committee was defeated. Subsequently, however, Government passed orders accepting proposals for the constitution of a central

University Board to control intercollegiate teaching and the discipline and corporate life of the students in general, and agreeing to the constitution proposed for the University Syndicate. The University was also given an important part in the selection of candidates for appointments to Government colleges.

The number of Arts and Science colleges remained the same as in the previous year, namely seven first grade and four second grade colleges. The number of pupils rose from 3,583 to 3,717, an increase of 134, in spite of a considerable fall in numbers at the Bihar National College and the Tej Narayan Jubilee College. The total direct expenditure on collegiate education rose from Rs. 10.5 lakhs to Rs. 11.4 lakhs, nearly five-sixths of the increase being due to the Science College, which was formally opened by His Excellency the Viceroy during his visit to Patna in November 1928.

Certain alterations and additions have been made during the year both to the scheme of studies and to the buildings of the various colleges. The chief of these, which is likely to be of considerable benefit to post-graduate work, was a new University regulation, under which a student who takes up both law and a post-graduate course in arts or science must devote three years instead of two to the combined course. At the Patna Law College, the number of tutorial periods for each subject has been increased from one a month to one a week; honours classes in history have been opened at the Tej Narayan Jubilee College and new hostels have been added to the Patna College, the Greer Bhumihar Brahman College and the Bihar National College.

Training of teachers.

There are five secondary training schools in the province, the number of pupils in which increased during the year from 267 to 275. Unfortunately the prospects offered to those who complete the course at the training schools are not sufficient to attract to the schools men who have passed the intermediate standard, and many of the matriculates admitted are of poor calibre. It is true that most of the men who pass out can obtain posts of some kind, but, owing to the depressed financial position of local bodies, the pay offered is low, being on the average not much in excess of Rs. 30 per month. The number of elementary training schools decreased by one, which was closed during the year, and the number of pupils fell from 1,981 to 1,965. A scheme for the reorganization of these schools was under the consideration of Government but has had to be postponed owing to lack of funds.

Oriental studies.

The number of recognized Sanskrit *tols* rose from 263 to 268, the number of pupils remaining practically stationary. In common with the fall in the number of primary schools the number of recognized *pathshalas* decreased from 817 to 788, with a corresponding reduction in the number of pupils. The expenditure from public funds on Sanskrit education amounted to Rs. 2.29 lakhs, over Rs. 20,000 more than in the previous year, the increase being largely due to the inclusion under this head of expenditure on the Ayurvedic school managed by Government. The number of recognized *maktabs* fell from 3,659 to 3,493, the reason for the decrease being the same as that for all primary schools. The expenditure from public funds for the benefit of Muhammadan pupils is recorded in the Education report as having risen from Rs. 4.43 lakhs in the previous year to Rs. 6.11 lakhs, but the increase was largely due to the inclusion of items left out of account previously, such as schools and classes on an Urdu basis, training schools for Muhammadan teachers, the *tibbi* school, and stipends reserved for Muhammadans. The percentage of Muhammadan pupils to Muhammadan population fell slightly from 4.03 to 3.97 per cent., but the proportion is still in advance of that for all castes and creeds, which showed a percentage of 3.32 under instruction.

Education of special classes.

The number of Christian aborigines under instruction rose by 926, but that of other aborigines under instruction fell by 4,360. The fall was due to the closure of weak schools owing to financial difficulties. In the Santal Parganas alone 62 schools were closed for this reason, and in Chota Nagpur there was a decrease of 2,593 pupils in class I.

The number of untouchables under instruction fell from 24,921 to 23,562, the fall being due both to the closure of schools and to floods and epidemics in Orissa, which provides more than two-thirds of the total number of pupils. In Angul a school was opened for *ghasis* and arrangements were made to start an upper primary boarding school for *pan* boys. Twenty-four schools for *pans* were amalgamated with neighbouring schools, a factor which was largely responsible for the decrease from 233 to 221 in the number of special schools for untouchables.

Owing mainly to the abolition of the post of one aboriginal sub-inspector the sum earmarked for the education of aborigines fell from Rs. 53,561 in the previous year to Rs. 51,684, while expenditure on the education of untouchables rose from Rs. 39,176 to Rs. 45,880, owing to the employment of the inspecting staff for the whole year instead of for a part only.

Female education.

The Royal Commission on Agriculture in the course of its report, which was issued last year, emphasized the importance to rural development of the spread of literacy among women. The influence of female education in spreading lasting literacy among the young is now under investigation, but the whole problem is one which has to be considered not only from the point of view of women, but from that of the interests of the whole community. During the year female education has made progress in certain directions. Though the total number both of girls' schools and of female pupils decreased from 2,978 schools with 121,164 pupils to 2,780 schools with 118,950 pupils, the decrease was entirely confined, for reasons which have already been discussed, to primary schools. The number of pupils reading in middle English schools increased from 1,631 to 2,567 and the number of middle English schools from 14 to 18, from which it would appear that, given adequate facilities, there will be no lack of female pupils. The number of trained women teachers was still far short of the demand. The special scale of pay sanctioned by Government during the previous year for trained women matriculates in the vernacular teachers' service has not, so far, attracted the type of teacher required.

A scheme for the encouragement of the study of hygiene and needlework was initiated during the year by Lady Stephenson. An examination in these two subjects, open to all girls and women of the province, whether in or out of school, will be held yearly for medals and diplomas. The first examination was held in January 1929 and an exhibition of the needlework sent up was held in March.

The Girl Guide movement continued to prosper, most of the high and middle English schools having troops attached to them. There are signs that the movement is becoming increasingly popular among girls.

CHAPTER VI.

Public Health and Medical Relief.

Organization of the Public Health Department.

The maintenance of public health in the province is performed by two departments, the Public Health Department and the Medical Department. The general function of the former is to prevent disease, that of the latter to cure it. The Public Health Department is, in its turn, divided into two branches, the medical and the engineering. At the head of the medical branch is the Director of Public Health, while the Superintending Engineer supervises the engineering branch. The functions of the medical branch consist not only of the prevention of epidemics and infectious diseases, but also the propagation of information regarding the general principles of hygiene and sanitation. The engineering branch is concerned with the maintenance of water-supply and drainage schemes in Government institutions. It also prepares water and drainage schemes for municipalities and gives advice concerning their maintenance.

The medical branch of the Public Health Department has been built up from exiguous beginnings. In 1912, the staff consisted of only two officers, the head of the department and one other. Since then, the staff has gradually been increased as circumstances demanded, and there is now a permanent Public Health cadre, created in 1926, consisting of 26 permanent and 6 temporary officers, all of them qualified members of the medical profession.

Control of local health organizations.

Not only has there been a large expansion in personnel but there has also taken place, during the last few years, a considerable development in the duties undertaken by the Department. In consequence of the passing of the amended Local Self-Government Act and the new Municipal Act, the primary responsibility for public health devolved on district boards and municipalities. In 1924, a scheme was drawn up by Government under which there was to be a separate public health staff in each district and in each municipality, headed by a duly qualified health officer; half the cost of each organization was to be subsidized by Government, while Government's public health organization was to act as a co-ordinating and controlling agency. Unfortunately, however, though several district boards started public health

organizations, most of them were unable, owing to lack of funds, to continue to finance them, and the assistance promised by Government could only be extended, for similar reasons, to the three poorest district boards in the province. In addition, Government had to withdraw its contributions to municipalities for the maintenance of health officers, whereupon all towns that employed such officers dispensed with them. The consequence was that an enormous amount of work, which would otherwise have been performed by district and municipal health officers, has been thrown on to the Department.

During the past year, the number of district boards maintaining health organizations headed by a properly qualified health officer rose from 9 to 11, while the number Government were able to subsidize increased from three to five. The existing organizations are reported to have done useful work, hampered though they were by lack of funds; and Government have offered to lend to six other boards, for a year in the first instance, the services of assistant surgeons from the Department's reserve of epidemic doctors to work as district board relief officers, provided that the boards provide their travelling allowance and evolve satisfactory public health organizations suited to their local needs and circumstances. The offer has already been accepted by two boards and negotiations are proceeding with others.

Of the municipalities, only four, namely Patna, Gaya, Puri and Bhagalpur, had health officers. Of these officers, three were members of the provincial public health cadre, whose services have been lent to the municipalities, and one a private practitioner employed as a part time health officer. Owing to the present unsatisfactory state of municipal conservancy arrangements, which has already been remarked upon in the chapter dealing with municipalities, the appointment of health officers in all municipalities is obviously desirable but is, for financial reasons, at present impracticable.

The record of the Jharia Mines Board of Health affords, as in past years, an indication of what an adequate health organization can accomplish. This board now controls a colliery area which comprises the whole of the Dhanbad subdivision (except the Dhanbad municipality), the population of which is 453,948. In the whole area there were only 200 deaths from cholera, in spite of a severe epidemic, and 66 from small-pox. The mortality ratio per mille from cholera works out at 0.4 against a provincial ratio of 2.2; in the colliery area the death ratio from cholera was even lower, being only 0.3 per 1,000.

Health propaganda.

In addition to the inspection of the health organizations of district boards and municipalities, the Department has, during the year, been engaged in numerous other forms of public activity. One of the most important of these has been the spread of health and sanitation propaganda by means of magic-lantern lectures. During the year, many lectures and addresses on health subjects have been delivered by officers of the department, both in towns and villages, illustrated by lantern slides. The work has been much appreciated and there is no doubt that it serves a very useful educative purpose. The inspection of village sanitation has been another important form of activity, though it is, unfortunately, not possible to record any appreciable advance in this direction. The chief difficulty in the way of improvement has been the inadequacy of the funds of union boards. There has been practically no attempt on the part of these boards to tax themselves and most of their funds are derived from grants from district boards, which have, in most cases, been inadequate. Minor improvements in sanitation have, however, been suggested and acted on when funds have permitted. Other important duties include the medical inspection of high schools, performed by five school medical officers who are permanent members of the public health cadre; assistance to local organizations in dealing with epidemic diseases and in the supervision of *melas*, given by an epidemic cadre of ten assistant surgeons; and the maintenance of a publicity bureau, which during the year delivered twenty-three lectures, distributed over a thousand leaflets and issued fourteen press articles.

General Health statistics.

The general health of the province during the year continued to be on the whole satisfactory. The number of births increased from 1,280,117 to 1,301,529, an excess of 441,336 over the number of deaths. Owing largely to a cholera epidemic, the number of deaths increased from 853,024 to 860,193, though the death-rate per mille, which was 25.3, was considerably below the average death-rate for the last ten years, namely 31.5. The death-rate was highest among Hindus (25.8) and lowest among Christians (16.0). The birth-rate per mille was 38.3, compared with 37.6 in the previous year, and a decennial average for the province of 37.2.

The highest district death-rates were in Puri (31.1), Cuttack (30.9), and Palamau (29.6). A sharp outbreak of cholera occurred in the Puri district after the *Rath Jatra* festival, when pilgrims returned to their homes from Puri town. Cholera had been prevalent in the Cuttack district before the *Rath Jatra*, and it is

probable that pilgrims from this district were, to some extent, responsible for the outbreak at Puri during the festival.

The healthiest districts in the province were Singhbhum (16.1), Manbhum (16.2), and the Santal Parganas (19.5) while the healthiest towns were Dhanbad (2.3), Dumraon (2.9), and Daltonganj (3.7). The rate of mortality among infants, which fell from 147.7 per thousand births in 1926 to 133.4 in 1927, showed a further fall to 131.8 last year. Among male infants, the rate of mortality was 141.4 and among female infants 121.7 per mille.

Verification of vital statistics.

The verification of birth and death statistics was, as usual, undertaken by the vaccination staff, aided by the health officers of such towns as had them. In the 58 municipal towns, where registration is compulsory, the accuracy of over 20,000 births and deaths was investigated, and over 400 omissions detected. The number of verifications in towns, however, has diminished rather than increased in recent years. In rural areas, where registration is not compulsory and births and deaths are reported by village chaukidars on their weekly visits to the police-station, only 2,633 vital occurrences could be verified. It is not likely that much progress will be made in verification in rural areas until district boards are able to make this work a definite part of the duties of their health organizations. The Department continued to publish every week the vital statistics of all municipalities with a population of 20,000 and over, and to circulate weekly epidemic reports from all districts.

Comparative incidence of chief diseases.

The following statement compares the ratios under the chief heads of mortality in 1928 with the average ratio of the previous ten years :—

	Urban.		Rural.		Combined.	
	Ten years' average.	1928.	Ten years' average.	1928.	Ten years' average.	1928.
I	2	3	4	5	6	7
Cholera	1·8	1·8	1·8	2·3	1·8	2·2
Smallpox	0·6	0·3	0·4	0·4	0·4	0·4
Plague	1·3	0·06	0·5	0·2	0·5	0·2
Fevers	14·8	8·2	22·1	16·9	21·8	16·6
Dysentery and diarrhœa	1·5	1·0	0·8	0·5	0·8	0·5
Respiratory diseases ...	0·3	0·6	0·2	0·1	0·2	0·2
Injuries	0·6	0·5	0·4	0·3	0·4	0·3
All other causes ..	7·7	5·7	5·3	4·7	5·4	4·7
Total ...	29·2	18·4	31·6	25·2	31·5	25·3

It is curious to note that though, as a general rule, infectious diseases such as cholera, plague and small-pox are more prevalent in towns, owing to overcrowding and density of population, and the consequent facilities for infection, there was in 1928 a higher mortality rate from these diseases in rural than in urban areas. Mortality from fevers, of which malaria is the chief, was as usual considerably higher in rural areas, owing to the existence of greater facilities for the breeding of the anopheline mosquito and the poorer economic condition of the inhabitants. On the other hand, the death-rate from respiratory diseases, in which category are included consumption, pneumonia and influenza, was, as usual, very much greater in towns than in rural areas.

Cholera.

The death-rate from cholera rose from 1.4 per mille in the previous year to 2.2 in 1928. There was a severe epidemic of cholera throughout the province during the year. In Bihar, the districts most severely affected were Gaya and Shahabad, Champaran, Darbhanga and Muzaffarpur, while in Orissa the districts of Puri and Cuttack suffered most severely. Twenty temporary epidemic doctors were added to the permanent epidemic staff of ten and were sent out into the districts of the province to cope with the outbreak, and the reserve maintained by Government of 100 trained disinfectors, was also mobilized and sent out with them. The epidemic was successfully combated and had subsided by the month of November, except in Puri and Cuttack, where it continued till the end of the year. An organized campaign of inoculation with cholera vaccine was carried out during the year, with gratifying results. A grant of Rs. 10,000 was made by Government for the purchase of vaccine, and supplies were issued to districts from the Vaccine Depôt at Namkum, where large stocks are maintained. The number of doses of vaccine issued from the depôt, during the year, was just under a quarter of a million, more than six times as many as in the previous year. The villagers in affected areas often came forward freely for inoculation, even before the epidemic had actually appeared in their villages, and the supply of vaccine was hardly equal to the demand. This valuable preventive measure is gaining in popularity every year.

As in the previous year, strenuous precautions against cholera were taken on the occasion of the *Snan Jatra* and *Rath Jatra* festivals at Puri. A staff of epidemic doctors was drafted to Puri to supervise the sanitary arrangements of the town during the two festivals, and inoculation centres were opened at the railway stations of Balasore, Cuttack and Puri and at six places in the town itself.

The number of pilgrims inoculated was 25,176, more than double the number treated in the previous year. It was satisfactory to note that many pilgrims who had been inoculated in the previous year not only came forward again, but tried to persuade their friends and relations to submit to the operation.

Small-pox.

The death-rate from small-pox fell from 1.0 per mille in 1927 to 0.4 last year. The highest death-rate was recorded in the district of Palamau (1.3) and the lowest in the district of Angul (0.02). The towns in which small-pox was most severe were Raghunathpur, Gaya and Chakradharpur, which returned death-rates of 5.5, 1.4 and 1.3 respectively. While small-pox occurs in all districts of the province every year, the severer outbreaks take place at periodic intervals of six or seven years. The crest of this periodic wave of infection was reached in 1926-27, and the statistics for last year appear to indicate a lull, which may reasonably be expected to last for three or four years. These quiescent periods, however, are apt to induce a false feeling of security among the people, with the result that they are generally reluctant to come forward for vaccination, though ready enough to do so when an epidemic prevails. The only remedy for this attitude lies in compulsory vaccination, which is at present in force in only two districts, Patna and Hazaribagh, though the question of extending it to many more districts is under consideration. In the Patna district, the control of vaccination has recently been transferred from the Civil Surgeon to the district board, and Government have offered to repeat this experiment in all districts where health officers are employed, provided that the district boards agree to the extension of compulsory vaccination to those districts.

Fever.

The death-rate from fevers was 16.6 compared with 16.4 in the previous year. The expression ' fever ' is not necessarily a true indication of the extent to which malaria, enteric fever, or fever of a tropical nature are prevalent, as the statistics under this head are largely based on the reports of village chaukidars, who attribute to fever any death from a disease of which fever has been a symptom. For reasons which have been discussed in another paragraph, the accurate verification of these reports is a difficult matter. Efforts have been made in recent years to gauge the amount of malaria in various districts by taking a spleen census of children. These investigations have indicated the prevalence of malaria in most districts, but more requires to be done to control and check the disease. The sale of quinine increased from just under 400 lbs. in the

previous year to 529 lbs. in the past year. The drug was supplied free to certain schools in almost every district in the province, and was regularly consumed by nearly 4,000 scholars.

Plague.

The death-rate from plague was 0.2. The rate has remained constant for the last four years and shows no signs of increasing. There was the usual winter epidemic in the Muzaffarpur and Darbhanga districts, with which the inhabitants are now so familiar that they evacuate their villages as soon as it appears. There was also a small epidemic in the Monghyr district and a sharp outbreak in the Saran district, probably brought across the border from the adjoining districts of the United Provinces. The other districts of the province escaped altogether.

Dysentery and diarrhœa.

These diseases show a death-rate of 0.5 against a decennial average of 0.8. As usual they were most prevalent in the Orissa division which reported 13,504 deaths from these diseases out of a provincial total of 17,439, a proportion of 77 per cent. The high incidence of dysentery and diarrhœa in Orissa is probably due to climatic conditions and bad water-supply, also to the prevalence of malaria, the debilitating effects of which render its victims liable to more serious diseases.

Food adulteration.

The Public Health Laboratory examined during the year over five hundred samples of food. The examination showed a very high percentage of adulteration. For example, 32 per cent. of the *ghi*, 74 per cent. of the mustard oil and 66 per cent. of the milk samples were found to be adulterated. There is obviously great necessity for the vigorous application by municipal authorities of the Food Adulteration Act.

Water-supply and drainage.

The installation of water-supply and drainage schemes, which play an important part in the prevention of disease is, as has already been shown in discussing the functions of the department as a whole, the sphere of the Engineering branch of the Public Health Department. During the year, this branch has, in addition to the water-supply and drainage schemes installed on behalf of Government, undertaken two schemes in the interests of local bodies, which are of outstanding interest to the general public. One of these is a scheme for a permanent supply of pipe water to the annual Sonepur *Mela*. Until a few years ago, the water-supply at the *mela* depended on ordinary wells. In recent

years, Government have improved the arrangements by lending portable pumping sets for drawing water from these surface wells. The installation of a permanent piped water-supply was completed in time for the *mela* held in November 1929, and has greatly added to the safety and comfort of the people, not only of this, but of neighbouring provinces, who attend the *mela* in large numbers. The installation has been financed and will be maintained entirely by Government.

The other scheme is that of a water-supply for Puri. A tube well had been sunk during the previous year in the sandy area near the sea and the tests which were then conducted were continued during the year under report, until the fact was established that there was, in the opinion of the Superintending Engineer, a sufficient supply of fresh water beneath the sand to provide the town of Puri with a pipe water-supply system. A joint committee of the municipality and Lodging House Fund Committee has subsequently been formed and an outline scheme has been prepared for this committee's consideration. The scheme will be financed by the terminal tax, which has been imposed now for several years, supplemented by water-rate. It is hoped that it will be possible to start construction work in the year 1930-31. Other work done for local bodies includes the installation of an electrically driven pumping plant for the Patna-Bankipore water-supply and the completion of a tube well in the Patna Administration Committee area. Schemes were also prepared for the improvement of the Muzaffarpur and Gaya water-supplies.

The Engineering branch has been extended by the creation of a new mechanical division, with a Mechanical Engineer at the head, to control the maintenance of pumping installations in Government institutions and to assist in the supervision of all open municipal waterworks. A special Drainage Engineer was also appointed to work out a scheme for a sewerage system for the west end of the Patna City municipality and for part of the Patna Administration Committee area.

Medical relief.

Medical relief has continued to expand during the period under review, and at the end of the year there were 680 hospitals and dispensaries, an excess of 22 over the number at the end of the previous year, and of 82 over the number in existence three years ago. The extent to which these institutions are appreciated is shown by the fact that the number of outdoor patients has increased during the past three years by 895,777 and that of indoor patients by 11,087.

The ideal recommended by a resolution of the Legislative Council soon after the Reforms, namely the provision of a dispensary in every police-station area and a journey to the nearest dispensary of not more than five miles for any sick person wishing to attend it, is much nearer than it was then. But though the number of rural dispensaries exceeds that of rural police-stations by 21, there are still 88 police-station areas which have no dispensary; nor is much progress likely to be made with opening new dispensaries in the near future as very few district boards can find the recurring charges required for this purpose. During the last three years, the medical budget including building and sanitary projects has averaged over 41 lakhs every year, grants to district boards and municipalities have absorbed another Rs. 3 lakhs annually, and the amounts spent by local bodies themselves have averaged nearly Rs. 17 lakhs a year.

Medical education.

The Prince of Wales Medical College continued during the year to make satisfactory progress. The College was visited in November 1928 by His Excellency the Viceroy and Lady Irwin, who were very favourably impressed with all they saw. The whole course of training given at the College has been carefully reviewed in the light of the Inspection Report of the two visitors on behalf of the General Medical Council, who visited the College in January 1927. Though it has proved impracticable to give effect to all their suggestions for lack of funds, considerable headway has been made, and it is hoped to give effect to others next year. Several building improvements have been carried out and the equipment of the College has been greatly improved by the addition of new physiological laboratories. The two medical schools at Darbhanga and Cuttack continued to do good work. There was a strike of students at the Cuttack Medical School as a result of a fracas during a football match, which terminated after the Inspector-General of Civil Hospitals had spoken to the students.

The number of applicants for admission to the Medical College rose from 82 in the previous year to 122 in 1928-29. The College now turns out yearly about 40 graduates and the two medical schools at Darbhanga and Cuttack about 80 licentiates of medicine, and approximately the same number of trained compounders. This number represents the maximum that can be efficiently taught, taking into consideration the material, hospitals and teachers available and it is doubtful whether the province can absorb more for the present.

Medical aid to women.

The steady progress which has been made in recent years in affording medical relief to women continued during the period under report. In the year after the province was created, the number of women treated as out-patients was 374,000 and as in-patients 6,000; in 1928 the number of women out-patients had risen to 944,000, and of in-patients to 15,000. There are now women doctors at 25 hospitals at district headquarters and at 21 subdivisional headquarters. Considerable progress was also made in the promotion of maternity and child welfare work. This important work was given a start by Government some years ago by the appointment of a maternity supervisor and four trained midwives in the town of Patna, who have superintended hundreds of births annually. The movement has been spread by the Bihar and Orissa Maternity and Child Welfare Society. This private charitable organization was formally registered in August 1928 as a charitable society, with an endowment fund of Rs. 42,000 contributed by private donations, and made excellent progress during the year under the presidency of Lady Stephenson. There are now two maternity and child welfare centres in Patna, one constructed in 1926-27 from funds collected by Lady Wheeler, and the other more recently constructed by generous aid from Raja Devaki Nandan Prasad Singh. There is also one centre at Monghyr and another at Cuttack, the latter of which has specialised in maternity work, and dealt with about 600 cases during the year. The opening of new centres at Bettiah, Chakradharpur and Purulia is under consideration and a propaganda sub-committee has circulated practical advice to local bodies in the hope that they will take up this work, which is a legitimate charge on their funds.

Treatment of special diseases.

A tuberculosis sanatorium at Itki on the Ranchi plateau was partially opened in April 1929, just after the close of the period under report, which was constructed under the supervision of a specialist Mission doctor on up-to-date lines, with a sewerage system, electricity and pipe water-supply. A Pasteur Institute at Patna was also opened after the close of the period under report, in the buildings of the Pathological department of the Medical College. Research work in filariasis (elephantiasis) continued at the filariasis hospital at Puri, and treatment for ankylostomiasis (hookworm) was also carried out in many hospitals throughout the province. The numbers treated in hospital, however, afford little indication of the widespread incidence of this disease, which is undoubtedly responsible for much undefined ill-health. Special grants have, as usual, been made by Government

during the year for the treatment of kala-azar, a disease which is very prevalent in the districts north of the Ganges, and for the treatment of venereal disease.

Treatment of leprosy.

The province contains eight leper asylums, with accommodation for nearly 2,000 patients, and 12 clinics for the treatment of lepers, of which five are maintained by Government and seven by local bodies or by public subscription. Most of the asylums are managed by Missions, Government contributing a capitation grant of Rs. 3-8-0 per head per month amounting approximately to Rs. 80,000 a year. The asylums continued during the period under review to do excellent work.

The problem of eradicating leprosy has recently been carefully examined by the local Government, with the assistance of Dr. Henderson, of the Mission to Lepers. Government have sanctioned the employment of a party of five trained assistants under their Leprosy Expert to promote propaganda, to carry out a leprosy survey throughout the province and to open clinics for the outdoor treatment of the diseases, which it is hoped that local bodies will continue to maintain after the departure of the survey party from each district. The survey party started work just after the close of the period under report.

Radium institute.

The most important event to record regarding this institution is its transfer in July 1928 from Ranchi to Patna which has made it possible to make much fuller use of the radium for treatment purposes, in conjunction with the physicians and surgeons attached to the Medical College Hospital, and also for teaching purposes. The transfer has also made treatment with radium more accessible to the inhabitants of the province. The institution continued to attract patients from all parts of India, and, in spite of the dislocation caused by the move, the numbers treated have been larger than ever. Since the close of the period under report, the sum of Rs. 95,000 has been allotted by His Excellency the Governor for the purchase of radium from money given by the late Sir Rameshwar Singh, Maharajadhiraja of Darbhanga; this generous gift has assured the future of radium treatment in the province.

Mental Hospitals.

The European and Indian Mental Hospitals at Ranchi continued to develop treatment of mental diseases on modern lines. At the European hospital, a successful experiment was made during the year of relaxing the segregation of the sexes. The patients are

now allowed to mix freely on all ordinary occasions and a distinct improvement in their outlook on life has been noticed in consequence. The serious overcrowding of the Indian hospital was temporarily relieved by restricting admissions to really necessitous cases, and the numbers dropped as a consequence from 1,409 in 1927 to 1,332 in 1928. This number is still too large for safety and for the proper treatment of the patients, as the institution was only constructed to hold 1,286 patients; and a scheme for its expansion was worked out by the managing committee, composed of representatives of the two Governments of Bengal and Bihar and Orissa, which, it is hoped, will be carried out, as funds permit, within a few years.

CHAPTER VII.

Maintenance of the Peace and Administration of Justice.

The expenditure on the police force during the year 1928-29 was Rs. 81,12,196, a figure which was Rs. 1,60,940 less than in the previous year. As the table given below shows, expenditure on the police during the past 8 years has remained practically stationary.

Year.	*Lakhs.*
1921-22	81,31
1922-23	80,11
1923-24	79,29
1924-25	80,69
1925-26	82,22
1926-27	82,69
1927-28	82,73
1928-29	81,12

The consequence is that it has not been possible to expand and equip the force to keep pace with modern methods of detection and the increasingly complex conditions of every-day existence, with the result that the police have been considerably handicapped in the race against crime. For instance, only 8 towns out of 40 containing over 10,000 inhabitants have telephones; half the police-stations in the province are more than 5 miles from a telegraph office; and appliances essential to the successful detection of crime, such as cameras and magnifying glasses, cannot yet be supplied to investigating officers for lack of funds.

The total strength of the police force of the province in 1928-29 was 14,422, and the area which the force has to protect is 83,161 square miles, a proportion which works out to one policeman for every 5½ square miles. The population of the province is over 34 millions, which gives one policeman for

every 2,372 persons. The cost of the police, on the other hand, was less than 4 annas per head of population. It may be said with truth that each police officer in the province has a larger area and more persons to protect than in any other province in India, while the payment made by each person for this protection is less than in any other province. In other words law and order is maintained in Bihar and Orissa with exceptionally few police and at exceptionally low cost.

Relations between the police and the public.

It is gratifying to record a continued improvement in the attitude of the public towards the police. Though the tone of the press is still generally hostile, the Legislative Council in voting funds has latterly shown a more sympathetic outlook on police difficulties, and there have been numerous instances in which the services of the police have received grateful recognition from members of the general public. Many letters of appreciation and thanks have been received from all parts of the province for such varied services as the saving of life and property, the extinguishing of fires, the disinfection of wells, the rendering of first-aid to injured persons and the restoring of lost children to their mothers; while in communal disturbances and industrial strikes the tact and impartiality shown by the police have been publicly and repeatedly acknowledged. It is evident that the strenuous efforts which are being made within the service to instil in every officer and man the supreme importance of gaining the confidence of the public are slowly producing the desired effect.

Help from the public to the police.

Side by side with this increase of confidence towards the police, and no doubt largely because of it, there are gratifying signs of an increase in the measure of active assistance rendered by the public to the police in the execution of their duties. In the past the apathy of the average individual, amounting often to active obstruction, has been the chief difficulty with which the police have had to contend. The constant preaching and rewarding of self-help are, however, slowly bearing fruit and, though it is still common to find persons unwilling to come forward and give information, or to depose in police cases owing to personal inconvenience and loss of time, there are indications of an increased realization of civic responsibility and of the duties of the individual towards the state. Of the numerous instances of help rendered by the public during the year there are one or two which call for special mention. In one district a body of Muhammadans assisted a constable to prevent an attack on

the house of a Hindu by 500 other Muhammadans; in another a rickshaw coolie played a prominent part in arresting a professional poisoner; while in another, casualties have been inflicted by villagers on dacoits in every year save one since 1924. The sum of Rs. 8,975 was expended in rewards during the year to members of the public, the most deserving receiving their rewards from His Excellency the Governor himself, during the annual police parade at Patna in January 1929.

Discipline and health of the force.

The discipline of the force during the year was most satisfactory. There were 100 fewer departmental punishments than in the previous year, representing a drop of nearly twelve per cent, while judicial punishments dropped from 102 in 1927 to only 39 in 1928. The number of criminal charges against the police, which had fallen from 223 in 1926 to 206 in 1927, again fell in 1928 to 199. Of this number 108, or more than 50 per cent, were found false or dismissed, and 52 cases ended in acquittal or discharge or were withdrawn. Only 14 persons altogether were convicted under the Penal Code, and of these only 8 for direct offences against the public. How marked has been the general improvement in discipline may be gathered from the fact that during the preceding quinquennium the percentage of criminal charges against the police declared 'true' was 17 against 7 last year; the annual average number of convictions under the Police Act was 57 against last year's figure of 26; and the annual average number under the Indian Penal Code 41 against 14 last year.

The health of the force showed a slight falling off compared with the previous year and admissions into hospital rose from 3,860 to 4,150. This increase was largely due to malaria, in spite of prophylactic measures, such as periodical quinine parades and the issue of mosquito nets. At the Constables' Training School, 63 per cent of the 662 men examined were found to be infected with hookworm disease and were cured. Casualties amounted to 5.4 per cent of the total force, a slightly lower figure than in the previous year.

Literacy among constables.

The number of constables literate to the extent of being able to sign their names and to read and write simple sentences rose from 80 to 82 per cent. At the daily classes which are held both at headquarters and at all police-stations, constables are taught reading, writing and arithmetic and are given instruction in traffic

control, first-aid, elementary hygiene and the reading of numbers in English, particularly motor-car numbers. The classes continue to be popular and great keenness is manifested by the men in improving their education. Endeavours are being made to enlist a more literate type of constable. Of the numbers trained at the Constables' Training School 1st year, 53 per cent were literate on joining, a proportion which at the conclusion of the training had risen to 65 per cent.

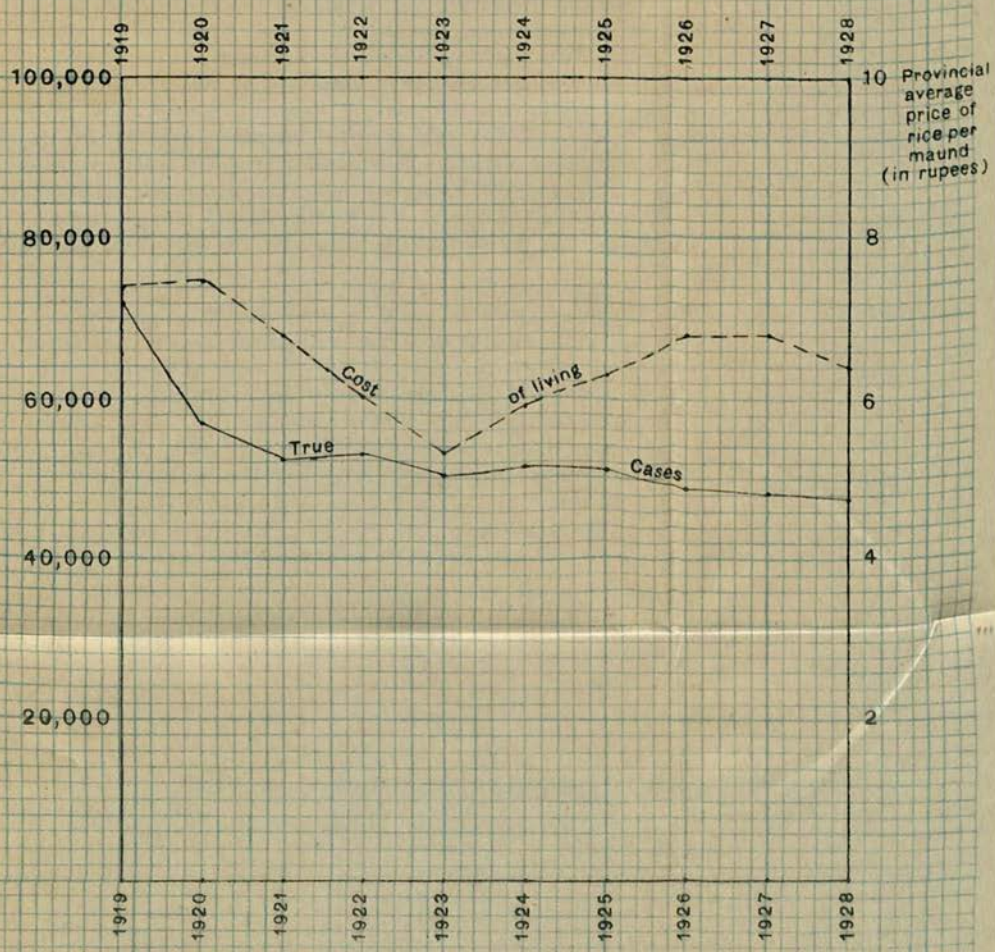
Cognizable crime.

The number of true cases cognizable by the police fell from 48,250 in 1927 to 47,392 and thus reached the lowest point in the history of the province. The percentage of convictions, however, also fell from 36.7 in 1927 to 34.9. The graph given on the opposite page, which compares the average annual price of rice in rupees per maund with the number of true cognizable cases during the past ten years presents some interesting features. Until 1924, it will be seen that the two graphs follow a very similar course. In 1919, for instance, when rice was at its dearest, crime was at its highest; in 1923, when rice was comparatively cheap, crime was low. After 1923, however, the two graphs diverge. In spite of the fact that there is a gradual increase in the price of rice, crime shows a gradual decrease from year to year; a feature which it is not unreasonable to conclude is partly due to the increased effectiveness of the police in recent years as an instrument for the prevention and detection of crime.

Political crime.

The Deoghar conspiracy case, which had been instituted in the previous year as a result of the discovery of arms, ammunition and a secret cypher in a house in Deoghar in the Santal Parganas, was tried by the Sessions Judge during the year. Of the 20 accused, who were all, with one exception, Bengalis of the *Bhadralok* class resident in Bengal or Assam, 12 were convicted and sentenced to long terms of imprisonment under section 124-A of the Indian Penal Code. Ten of those convicted appealed to the Patna High Court, which upheld the conviction of all save one. In the course of the appeal, none of the appellants challenged the veracity of a single witness or the genuineness of a single document produced by the police, a circumstance which is probably unique in the annals of conspiracy cases in this country, and one which prompted the Chief Justice, who heard the appeal, to pay a handsome tribute to the fairness and diligence with which the Criminal Investigation Department had conducted the enquiry.

Total true cognizable crime and the cost of living.



Murder.

The number of cases fell slightly from 270 in the previous year to 262. There was also a decrease of cases of culpable homicide. Of the 262 cases of murder, 118 or 45 per cent came to trial, and of these 63 or 24 per cent of the total number ended in conviction. The figures are a considerable improvement on the previous year's but are still poor judging by western standards. The aboriginal tracts, as usual, show a large number of cases. There were 9 cases in which witchcraft was the motive, against 16 in the previous year, and two cases of human sacrifice, the victims in both instances being boys of three years old who were sacrificed to exorcise evil spirits.

Dacoity and robbery.

The number of true cases of dacoity fell from 232 to 220, in 15 of which the dacoits were armed with guns. Only 33 or 15 per cent ended in conviction. The districts of Purnea and Bhagalpur were still responsible for the largest number of cases, though both districts show a decrease from the previous year's figures, due to vigorous action taken against active gangs of dacoits, either in specific cases of dacoity or under the preventive sections of the Criminal Procedure Code. In Purnea, an outbreak which occurred early in the year was so effectively dealt with by the tracing and conviction of one large gang and the capture of a notorious dacoit belonging to another, that only one further dacoity occurred in the area concerned between May and December. In addition, two large gangs of transfrontier criminals were captured while setting out on a raid and sentenced to long terms of imprisonment under section 402 of the Indian Penal Code. In Bhagalpur, the decrease was also attributable to the vigorous prosecution of gangs.

The prevalence of this form of crime is largely due to the apathy of the victims themselves, and it is disappointing to find that the number of cases during the year in which organized resistance was offered by the villagers was only 10 against 29 in the previous year. The successes achieved in Champaran and the Santal Parganas, where the dacoits encountered definite resistance, were sufficiently marked to encourage similar resistance elsewhere. The number of robberies rose from 132 to 145, of which 36 were highway robberies. Of the 63 cases sent up for trial, 49, or 34 per cent of the total number, ended in conviction.

Burglary.

The number of ' true ' burglaries rose by 1,000, an increase of 7 per cent. The increase is generally attributed to failure of crops and, in the

industrial districts, to strikes and the closing of collieries. Half the cases were of a very petty nature, the value of the property stolen being less than Rs. 5. Seven per cent of the true cases reported were sent for trial, and just under six per cent resulted in conviction. Stress is constantly being laid on the importance of finger prints and of the marks left by house-breaking instruments as a means of detection, and clues of this nature were responsible for the conviction of several cases.

Rioting.

The number of cases of rioting and unlawful assembly decreased slightly from 743 to 714, of which 35 were of a communal nature. Of the 517 cases sent for trial, 78 per cent ended in conviction. There has been a disquieting increase in this form of crime during recent years, the annual average since 1922 being 714, while that for the previous 10 years was only 450. Though the preventive sections of the Criminal Procedure Code were freely used, there were several instances of riots committed in defiance of the orders of the court. The number of lives lost in riots was 45 and guns were used in three cases. It is satisfactory to note on the other hand that the number of riots in which *spears were used fell* from 103 in 1927 to 43 last year.

Railway obstruction and derailment.

There were 29 cases of obstruction during the year, one derailment and 12 attempts at derailment. The derailment occurred between Dhanbad and Tetulmari on the East Indian Railway in May 1929, when the Up Dehra-Dun Express was derailed. Fortunately no lives were lost, nor was anyone injured. The derailment was clearly the work of persons with a knowledge of railway work, and from the fact that two separate attempts to tamper with the line at the same spot had been made a few days before, there is little doubt that employees of the Lillooah workshops, who were then on strike, were responsible. Three other cases of attempts at derailment also occurred during the period of the Lillooah strike. One case of obstruction was sent for trial during the year but ended in acquittal.

False cases.

It is disquieting to note that the number of cases declared maliciously false increased from 1,615 in the previous year to 1,717 in 1928, while the number of successful prosecutions fell from 126 to 115, and the number in which compensation under section 250 of the Criminal Procedure Code was awarded from 82 to 77. Until police officers take more trouble to collect materials to prosecute the complainant of a case which they are

investigating and believe to be false, and until magistrates bring themselves to impose sentences of a more deterrent nature this particularly contemptible form of crime is not likely to be checked.

Picketting and recognition of bad characters.

The system of picketting criminals and of deputing constables and chaukidars to recognize criminals in jails and bordering police-stations has again produced most satisfactory results. Many noteworthy arrests have been made, both by constables and chaukidars who have recognized old offenders, and by parties picketting the houses of temporarily absent criminals. In one district, the president of a union board is reported to have threatened to fine chaukidars if they continued to picket criminals instead of performing what he considered their more legitimate duties. The moral effect on the criminal of realizing that he is known by sight to so many of the police, and that his house is liable to be watched for six hours on any night on which he may choose to absent himself for the purpose of committing crime, is undoubtedly very great.

Criminal justice: magisterial courts.

The magisterial staff of the province consisted of 306 stipendiary and 188 honorary magistrates. The number of cases tried by magistrates was 68,684, the number brought to trial being 1,516 less than in the previous year. Of the cases tried, 637 were committed or referred to the Sessions court, the remainder being finally disposed of by magistrates. The number of witnesses who attended for examination in magistrate's courts was 272,769, of whom 26 per cent were discharged without examination. Magistrates have generally borne in mind the importance of not harassing witnesses by detaining them longer than is necessary, and the figures show that, of the witnesses in attendance, over 90 per cent were discharged on the first two days and that less than 2 per cent were kept after the third day. Even this small proportion could probably be reduced by a more methodical arrangement of cases.

Sessions courts.

The number of persons under trial during the year was 2,819, less by 359 than in the previous year but larger than in any other year in the history of the province. Of the persons tried, 50 per cent were convicted, the cases of 5 per cent were referred to the High Court and the remainder were acquitted. It is satisfactory to note that the number of cases in which more than two months intervened between the date of arrest and date of commitment fell from 167 in

1927 to 127, and the average duration of trials from the date of commitment to that of sentence from 70.3 days to 64.1 days.

Trial by jury.

The system of trial by jury continued to be in force in ten districts in the province. During the year 466 persons were tried by jury, and the verdict of the jury was accepted in respect of 385, reference being made to the High Court in respect of 66 persons. The percentage of convictions in cases tried by jury was considerably lower than in cases tried with the aid of assessors, the difference being most marked in Monghyr, where only 10 per cent of jury cases were convicted, against 63 per cent of convictions in cases tried with the help of assessors. In the opinion of one Sessions Judge it has been more difficult to secure satisfactory results under the jury system, which has tended to favour protracted trials and to operate against good police work. In the opinion of another, the partiality of juries in trials of communal cases is no less marked than that of assessors, and, in so far as the final decision rests with a jury, there is considerable danger that members of a community represented by a minority of the jury will be unable to obtain redress, or that they may find themselves falsely charged and convicted.

Criminal appeals.

The progressive increase in the number of appeals preferred in the courts of Sessions Judges since the amendment of the Criminal Procedure Code in 1923, to which attention has repeatedly been drawn, continued in 1928, when there were 2,977 appeals, an increase of 323 over the previous year's figures and of 79 per cent over those of 1923. Though the number of appeals in District Magistrate's courts showed a decrease of 186 compared with the previous year's figures, it was larger than in any other previous year and 40 per cent more than in 1923. In addition to this, the number of applications for revision in Sessions Judge's courts was 540 more than in the previous year and 64 per cent higher than in 1923. A large proportion of the appellants and applicants for revision of sentence gained nothing by their action. The appeals of 61 per cent were either unsuccessful or were summarily dismissed, and 78 per cent of the revision applications were either rejected or the orders of the lower court confirmed.

These large additions to the work of Sessions Judges, together with the marked increase in the number of cases committed to sessions, have led to the appointment of twelve assistant sessions judges, who, between them, tried 40 per cent of the sessions cases disposed of during the year. The handing over of such

a large proportion of criminal cases to judges trained mainly for civil work has led to serious congestion in the files of the subordinate civil judges, in spite of the creation of additional temporary posts.

Thirty-five references for the confirmation of the death sentence were decided by the High Court during the year. Out of 57 persons concerned, the death sentence on 25 was confirmed and on 20 reduced to transportation or rigorous imprisonment, while 12 were acquitted.

Civil justice.

The volume of civil litigation is still enormous and it is impossible to cope with it without a substantial and permanent increase in the judicial staff. Though there was a slight decrease from the previous year's figures in the number of suits instituted, the number is still 10 per cent higher than it was five years ago. The value of the 174,074 suits instituted amounted to some 5½ crores of rupees, a decrease of Rs. 52 lakhs compared with the previous year. As usual, the largest number of suits instituted were rent suits, representing 60 per cent of the whole, while the most valuable were title suits, representing in value 65 per cent of the litigation of the province.

The number of suits disposed of during the year was slightly lower than in the previous year and though there were 7,237 fewer pending at the end of the year than at the end of the previous year, the number of suits pending for more than a year was still larger than in any previous year except 1927. The average duration of contested suits in Munsif's courts rose by 27 days as compared with the preceding year and reached the record figure of 272.7 days while the average duration of uncontested suits was 124.2 days. This unsatisfactory state of affairs is due to inadequacy of staff, but the proposed addition to the cadre of six new posts of munsifs should be of material assistance in clearing off the arrears.

The number of civil appeals pending before the High Court at the close of the previous year was 4,422 while 3,498 were preferred during the year. Of this number, 3,267 were decided during the year, leaving 4,653 pending at the close of the year. The figures of the pending file are the highest in the history of the court. Two temporary additional judges of the High Court were appointed for the period from December 1928 to the opening of the Civil Court vacation, 1929. The congestion of work, however, remained serious, and two additional judges have now been appointed from November 1929 up to the Civil Court vacation of 1931.

The number of regular appeals pending at the close of the year before subordinate courts has also increased considerably, while the number of appeals pending for more than one year rose from 515 to 1,153. The proportion of civil appellate work done by subordinate judges continues to be unduly large, a position which is unfortunately unavoidable in view of the increasing amount of criminal work in the courts of sessions judges, which has been commented on in a previous paragraph. A proposal for strengthening the cadre of district and sessions judges is under examination.

Panchayat courts.

The *panchayat* courts instituted under the Village Administration Act of 1922 have afforded no appreciable relief to the Munsifs in whose jurisdiction they have been established and it is conjectured that a good deal of the work of these courts represents an increase of litigation. Within a limited sphere, however, they are doing useful work and it may be expected that their usefulness will increase.

Jail administration: number of prisoners.

The province of Bihar and Orissa contains four central jails, 12 district jails, 50 subsidiary jails, and one juvenile jail. During the year, there was a further increase in the jail population. The daily average number of prisoners of all classes rose from 7,503 in the previous year to 8,058 and of convicts from 6,264 to 6,760. The steady rise in the jail population during the past five years is mainly due to the confinement of transportation prisoners in the jails instead of sending them to the Andaman Islands.

Female and juvenile prisoners.

The number of female convicts admitted during the year fell from 548 in 1927 to 442, but the daily average number during the year increased from 169 in 1927 to 194. All long-term female convicts are transferred to the central jail at Bhagalpur and habitual prisoners are there segregated from casual prisoners. The number of youthful offenders and juveniles, a category which includes prisoners up to 20 years of age, fell from 989 in 1927 to 817. Of these, 71 (including 2 girls) were under 15 years of age. Thirty-five of the latter were sent to the Hazaribagh Reformatory School, and the remainder, as well as many of those between 15 and 20 years of age, either to the juvenile jail at Monghyr or to the jails at Bhagalpur and Bankipore, in both of which they were segregated and treated as in the juvenile jail.

The number of admissions to the Monghyr juvenile jail was 592, and the daily average population was 190 against 160 in the previous year. The percentage of short-term prisoners remained about the same. It has been stressed repeatedly that there can be no substantial improvement in the character of a juvenile prisoner unless he is detained for a period sufficiently long to teach him habits of discipline and industry. At present, only about 18 per cent of the inmates of the juvenile jail stay long enough to derive any benefit from industrial and disciplinary training. The establishment of an institution on Borstal lines is an urgent necessity and it is unfortunate that the question of starting one in this province has again had to be deferred. No less important is the problem of the care of juvenile prisoners after release. This was formerly undertaken by the Juvenile Prisoners' Aid Society at Monghyr, which was founded in 1923, but had to close down four years later owing to lack of public interest and support.

The general routine of the school connected with the juvenile jail was conducted on the same lines as before, though certain improvements, such as the issue of writing materials and the granting of prizes for good work, were introduced during the year. Lectures were also delivered on agriculture to 30 boys of the cultivator class, a useful innovation in view of the fact that most of the boys belong to that class and are, as a rule, reluctant after release to follow the trade they have been taught in jail.

Health of the prisoners.

The health records of the prisoners continue to show very satisfactory results. While the daily average number of prisoners has increased year by year from 6,276 in 1924 to 8,058 in 1928, the number of admissions to hospital has decreased from 5,169 to 3,357, the daily average of sick from 212 to 138 and the number of deaths from 133 to 82. During the past year, the hospital admission rate, the sick rate and the death rate per mille were the lowest ever recorded in the history of the province, a fact which reflects credit on the jail medical staff.

Education and discipline.

The compulsory education of all prisoners of 25 years of age and under was continued in the Gaya Central Jail throughout the year with encouraging results. There were 85 prisoners in the class at the beginning of the year and 46 were admitted during the year making a total of 131. The subjects taught were those prescribed for the upper primary class and the progress made was satisfactory in that four of the class finished their course in Class IV of the upper primary standard and 9 finished the full lower

primary course and were promoted to the upper primary class. The success which has attended the experiment has induced Government to extend the system to the Bhagalpur Central Jail. The working of the " star class " system of classification, the object of which is to segregate the more amenable type of prisoner eligible for the class, from prisoners of more criminal antecedents and tendencies, continued to be very satisfactory, and the discipline of the inmates of the class was exemplary throughout the year. There were 25 prisoners in the class at the beginning of the year and 33 were added during the year. They were taught reading and writing and given industrial and physical training.

The discipline of the prisoners showed considerable improvement. In spite of the increase in the number of prisoners, the number of offences committed was 1,253 less than in the previous year, a fall of 18 per cent. The decline is most marked under the head of offences relating to work and breaches of jail rules. With the fall in offences, there was also a decrease in punishments, the ratio of punishments to daily average population being 60 against 83 in the previous year. There was an entire absence of rioting or serious disturbance of any kind and there were only 6 escapes against the same number in 1927 and 16 in 1926.

Jail manufactures.

The two chief centres of jail manufacture are the Buxar Central Jail and the Bhagalpur Central Jail. At the Buxar Central Jail, which specializes in tent-making, tailoring of uniforms and weaving, the net earnings fell by over Rs. 30,000. The fall was largely due to the low rates at which police uniforms were supplied, which hardly covered the cost of labour, and to the temporary closing, from October 1928, of the weaving factory, which had in hand a large accumulation of manufactured cotton cloth, which was not likely to be disposed of for more than a year. At the Bhagalpur Central Jail which specializes in blanket-making, blacksmithy and carpentry, the net earnings fell from Rs. 35,506 in the previous year to Rs. 5,997 in 1928. This was mainly due to lack of orders in the blanket factory, to the reduction of prices owing to keen trade competition, and to the cutting down of the margin of profit on manufactured articles to an absolute minimum, as a safeguard against market fluctuations. No orders for bankets were received from the Army Department and those from other Government departments were disappointing, so that the banket factory had to depend mainly on orders from the public for their sales. It is hoped that the instructions recently sent by Government to all consuming departments will result in more orders being placed.

CHAPTER VIII.

Excise.

Excise Policy of Government.

The excise policy of Government has been, for some years, the subject of attack both in the Legislative Council and in the Press. More than one-third of the total income of the province is obtained from the revenue from excise, a fact which has been in itself sufficient for the critics of Government to attack a policy which is responsible for so large a proportion of the provincial revenues being derived from the consumption of intoxicants. The other aspects of the question, namely, that the remaining sources of revenue are so attenuated that excise has necessarily been forced into undue prominence, and that the rise in the excise revenue has been accompanied, not by an increase but by a decrease of consumption, have either not been appreciated by these critics or placed conveniently in the back ground. Year after year motions are put forward in the Legislative Council proposing either nominal or actual cuts in the financial provision for excise, as a mark of general disapproval of Government's excise policy. But no practical means have been suggested by which the cause of temperance could be promoted more effectually than it is at present, without resulting in a large decrease in the provincial revenues, and consequent bankruptcy; and the fact remains that if the excise revenue had not increased so largely during the past few years Government would not have had the means to finance the various schemes for the development of the " nation building " departments, to the extent they have done.

Results of the policy.

As a proof of the remarkable results which have attended Government's declared policy of " minimum consumption maximum revenue ", the following figures, which compare the excise revenue and consumption of excisable articles in the first year after the inception of the province with those of the period

under review, taken in conjunction with the diagram on the opposite page, are of considerable interest :—

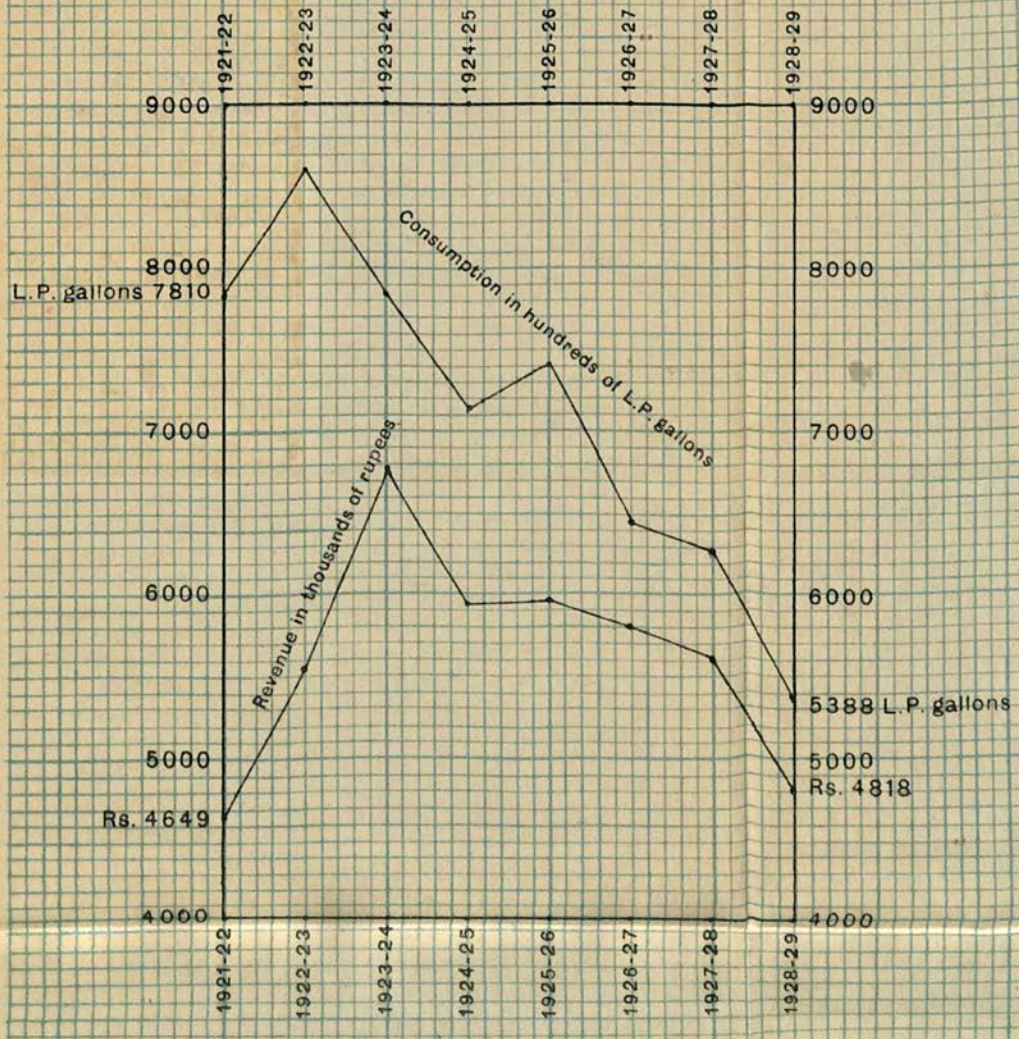
Year.	Consumption of country spirit.	Consumption of *ganja*.	Consumption of *bhang*.	Consumption of *opium*.	Total revenue
1	2	3	4	5	6
		Mds.	Mds.	Mds.	Rs.(lakhs).
1912-13	1,157,636 L. P. gallons.	2,498	538	926	103,24
1928-29	886,894 L. P. gallons.	1,376	258	629	189,91

Comparing the figures for 1912-13 with those for 1928-29, it will be seen that there has been a decrease since 1912-13 of 23 per cent in the consumption of country spirit, of 45 per cent in that of *ganja*, of 52 per cent in the amount of *bhang* and of 32 per cent in the amount of opium consumed; while in the same period there has been an increase in excise revenue amounting to 86 per cent. The figures for consumption of country spirit from outstills and of *tari* and *pachwai* are not included, as there is no record available, but as the number of outstills has fallen from 576 to 152 and of *tari* and *pachwai* shops from over 8,000 in 1912-13 to less than 6,000 in 1928-29 it is probably safe to assume that there has been a corresponding decrease in the consumption of outstill liquor and of *tari* and *pachwai*.

How the results have been attained.

Government may, therefore, claim that their policy has been remarkably successful. The results which have been described have been achieved mainly by a steady increase in the price of intoxicants, supplemented by various direct temperance reforms, all making for more efficient control of the drug and liquor traffic. The establishment of licensing boards in certain municipalities, to control shops and select licensees; reduction in the hours of sale and in the strength of the popular issue of country spirit in certain areas; the prescription of limits on retail sale and on possession of intoxicants in

Diagram showing the consumption of country spirit and revenue obtained therefrom in the districts of Patna, Gaya, Shahabad, Saran, Darbhanga, Bhagalpur, Monghyr, Purnea, Santal-Parganas, Puri, Cuttack, Balasore, & Manbhum



others; and the introduction of the sliding-scale system are examples of the reforms which have been instituted.

Sliding-scale system.

Perhaps the most important of these reforms is the sliding-scale system, by which the fee payable by the licensee of a country liquor shop is determined by the actual monthly consumption, instead of being settled by auction for the whole year. The licensee is allowed a margin of profit, which decreases on a sliding-scale as the consumption rises. The system has, since its introduction, been extended to more and more areas every year and has now had a fair trial over the major portion of the province. It has distinct advantages over the system of settlement by auction. In the first place, the element of speculation, which is the most objectionable feature of that system, is eliminated, thereby steadying the revenue and making a more correct budget possible. The licensees, being assured of moderate profits have no longer any strong incentive to push up sales in order to recoup the losses due to high speculative bids. Another advantage of the system is the effective control which it gives over the sale of intoxicants. Any undue tendency towards increase in consumption is at once checked by raising retail prices and modifying the scale of fees without dislocation of settlements, a method which is not possible under the auction system. A third advantage is that, by insisting on the rule of "one man, one shop", profits have been distributed among a larger number of persons than under the auction system, where men of moderate means were gradually being ousted by a ring of capitalists, who managed the shops through agents or servants. On the other hand, the substitution of this system for the old auction system has led to certain administrative difficulties. Under the old system the licensee had put a good deal of his money into the trade, and was alert to every influence which might affect his profits. It was, therefore, to his interest to assist the Excise Department to stamp out smuggling and illicit distillation. Under the new system the enjoyment of an assured profit has not been found to offer the same inducement to licensees to co-operate with Government in this direction. Though the new system gives fewer temptations to the licensee to cheat the public, it requires much closer supervision from the excise staff over the way in which the licensees keep their accounts of sale, if Government are not to be cheated of revenue. On the whole, however, the advantages of the sliding-scale system considerably outweigh the disadvantages and it has worked satisfactorily in the districts in which it is

in force. Their number was increased during the period under review by the addition of the Santal Parganas, most of the district of Hazaribagh and certain portions of the Ranchi district.

Excise in 1928-29; Consumption of country liquor.

The excise revenue in 1928-29 was Rs. 189.91 lakhs, a drop of Rs. 7.24 lakhs from the previous year's figures of Rs. 197.15 lakhs. The decrease in revenue was mainly due to a decrease in the consumption of country spirit, and also, to a lesser degree, in that of *ganja* and *bhang*. The decrease in the consumption of country spirit amounted to 119,810 L.P. gallons, and was shared, more or less, by all districts except five, which showed an increase. It was due to a variety of causes, both direct and indirect, a description of which is interesting as an illustration of the sensitiveness of the liquor trade to economic conditions. The seven districts in which the decrease in consumption was greatest all attributed the decrease partly to failure of crops. There were also other causes at work namely, in Patna the temperance movement, in Gaya a similar movement among certain castes, as well as an outbreak of epidemic disease and dullness in the lac market, in Saran emigration of manual labourers, in Monghyr the reduction in the size of bottles for retail sale, in Sambalpur an increase in the rate of duty and slackness in the rice trade, and in Hazaribagh an increase in retail prices and a continued slump in all the principal trades of the district. The Ranchi district was the only one which showed any appreciable increase in consumption, due to better supervision of shops and detection of cases, and to better prospects in the lac trade.

***Ganja* and *bhang*.**

Most of the *ganja* consumed in the province is grown under Government supervision in the district of Rajshahi in Bengal. It is also grown in a small area in the district of Bhagalpur. During the year, the area under cultivation in that district decreased from 31 to 16 acres, while the amount of *ganja* yielded by the decreased area was 143 maunds, against 181 maunds yielded by twice that area in the previous year. There was a decrease of 177 maunds from the previous year's figures in the total consumption of *ganja* and a drop of Rs. 1.46 lakhs in the revenue derived therefrom. This was due chiefly to the raising of the rate of duty from Rs. 30 to Rs. 35 a seer in certain Bihar districts, which had shown a steady increase in consumption during recent years, and the consequent increase in the retail price. Certain districts in Orissa showed an increase in consumption due

to better economic conditions and to an improvement in the quality of *ganja* supplied during the year.

There was a decrease of seven maunds in the consumption of *bhang*. The decrease was attributed in one district to the smuggling of *bhang* from the districts north of the Ganges, where it grows wild, in two others to high prices of food grains and the performance of fewer marriages among Hindus and in two others to lower retail prices prevailing in bordering districts of the United Provinces.

Opium.

The consumption of opium showed a slight increase of 19 maunds, practically entirely confined to four districts of the Orissa division, where there were good harvests and a consequent improvement in economic conditions. The whole question of the consumption of opium in Orissa, its history, its causes, and the way in which to control it, was exhaustively examined by a special committee during the year under review. The report is still under Government's consideration. Meanwhile, steps have been taken to check and eventually to eradicate opium-smoking by the enactment of the Bihar and Orissa Opium Smoking Act of 1928 which came into force on the 1st January 1929. Under this Act, all smokers are compelled to register within two years, after which period no fresh registrations can be made; and the manufacture, possession and use of smoking preparations of opium by unregistered persons becomes a penal offence.

Tari and pachwai.

There was a decrease of 48 in the number of licensed *tari* shops, but an increase in the revenue from *tari*, which rose from Rs. 23.09 lakhs in the previous year to Rs. 24.08 in 1928-29. The increase was largely due to an increase in the revenue from tree-tax. This tax had been introduced in the previous year in the Dinapore subdivision of the Patna district, and had then met with a certain amount of opposition, but thanks to practical demonstrations during that year, the opposition disappeared and it was found possible, during the year under review, to increase the rate of the tax considerably and to decrease the number of trees tapped, with the result that the revenue yielded by the tax was largely increased. Since the 1st April 1929, the experiment has been extended to the whole of the Patna district except one thana.

The total revenue from *pachwai* increased from Rs. 3.76 lakhs in the previous year to Rs. 4.19 lakhs in the year under report,

and there was an increase of 21 in the number of *pachwai* shops. New shops were opened in the Ranchi and Singhbhum districts to meet local demands and in the Giridih colliery area in order to wean the aboriginal consumers away from the more potent country spirit. The desired effect was attained in the latter area, as the sales in the country spirit shops in the neighbourhood fell immediately the *pachwai* shops were opened. The concession to aboriginals of free home-brewing of *pachwai*, which had previously been withdrawn from the industrial areas of Jamshedpur and Dhanbad, was withdrawn during the year from the municipal limits of Ranchi, Doranda and Lohardaga, and certain other areas in the Ranchi district. The withdrawal met with considerable opposition but past experience has shown that it does not take long for aboriginals to become reconciled to altered conditions of this nature.

Prohibition.

During the year, in accordance with an undertaking given by Government in the Legislative Council in March 1928, an experiment was made in prohibition in a selected thana area, namely, the Roserah thana in the district of Darbhanga. Three shops for the sale of country spirit in that area were closed and the transport and possession of country spirit within the area were prohibited. The experiment for various reasons has had no conclusive results; and its continuance has been sanctioned for another year.

Temperance movements.

A temperance movement was conducted during the year in the Champaran district organized by the local Congress Committee. Printed pamphlets were distributed recommending the boycott of excisable articles, notices were sent to excise vendors asking them not to take settlements of excise shops, and lantern lectures were delivered on the evils attending the consumption of alcohol. The members of the local Congress Committee also delivered speeches in various parts of the district. Whether this campaign had any appreciable result it is difficult to say. The number of cases of smuggling of excisable articles from fairs certainly fell, but the experience of non-co-operation days has indicated that a successful boycott of Government liquor shops is likely only to encourage illicit distillation and drinking.

Another temperance movement of a different kind, in that its roots appear to be in the people whom it affects themselves and not in the educated or politically minded classes, has been gaining ground during recent years among some of the lower

castes, directed towards social uplift. These movements are particularly strong in the Patna, Gaya and Muzaffarpur districts and, as has already been remarked, were responsible in the two first named for a decrease in the consumption of country spirit during the past year. In the Patna district, each community is trying to preach and enforce temperance through *panchayets* and Hindus, hitherto debarred by caste from doing so, are taking the sacred thread, the assumption of which implies a higher social status, and makes the consumption of alcohol a definite offence against caste rules. In the Gaya district, the *Ahirs*, *Telis*, *Koiris* and *Kahars* and in the Muzaffarpur district, the *Gowalas* and the *Kurmis* have been widely affected by this movement in recent years.

Preventive work.

The large increase in the tax on excisable articles in recent years has inevitably increased the profits derivable from illicit distillation and smuggling; and, as has been mentioned above, there is not such a strong inducement to licensees under the sliding-scale system as under the auction system to co-operate with the excise staff to stop these offences. It is true that the number of illicit distillation cases detected decreased from 1,173 in the previous year to 1,111 during the year under review. But these statistics cannot unfortunately be relied upon as a proof of a decrease in the number of offences committed. An increase in the number of cases of illicit brewing of *pachwai* from 986 to 1,051 coincided with the withdrawal of the concession of free home-brewing to aboriginals, and the increase was most marked in Ranchi district where this change of policy took place. The number of cases of opium-smuggling detected decreased from 135 to 107, and the number of cocaine cases fell from 75 to 36 in the period under review. The decrease in the number of cocaine cases detected must be ascribed, not to a decline in the use of cocaine as an intoxicant, or in the volume of illicit traffic in this drug, but to other causes, of which concentration on the detection of important cases to the comparative neglect of cases of a petty nature, was one.

CHAPTER IX.

Government and the Land.

Administration of Land Revenue.

Revenue-paying estates in Bihar and Orissa are divided into three categories: permanently-settled estates, temporarily-settled estates and estates managed directly by Government. By far the larger number are permanently-settled. Apart from Government estates, the only parts of the province where the revenue is temporarily settled are the district of Sambalpur and the greater portion of the three coastal districts of Orissa. The Government estates include the district of Angul, a large portion of the Santal Parganas, the Kolhan area in the district of Singhbhum, portions of the Puri, Cuttack and Palamau districts and smaller areas in most other districts. During the year under review, the total number of revenue-paying estates rose from 120,977 to 122,053, of which 108,659 were permanently-settled, 13,047 temporarily-settled and 347 under the direct management of Government.

Collection of Land Revenue and Cess.

The total demand and the total collection of land revenue during the year were the highest for the past five years. The total current demand for the year was Rs. 158.65 lakhs, an increase of Rs. 1.62 lakhs over the preceding year's demand which was mainly due to revision of land revenue assessment in the temporarily-settled estates in Balasore and Puri and to a progressive increase in the zamindari assessment in Sambalpur. There was, on the other hand, a slight fall in the demand from Government estates, owing to the transfer of the amount received from mining royalties in Shahabad to another head of revenue. This more than counterbalanced the increase in other districts, notably Angul, where, as the result of the settlement, the demand increased by Rs. 40,149. Remissions of land revenue rose from Rs. 32,214 in the previous year to Rs. 38,342, largely owing to an increase in the remissions granted in Bhagalpur in respect of holdings purchased in certificate cases and to deterioration of the soil by the fluvial action of the Ganges. The total collections, including arrears of the previous year, amounted to Rs. 158.37 lakhs, leaving

a balance outstanding of Rs. 4.01 lakhs, against Rs. 4.38 lakhs outstanding at the end of the previous year. The position as regards cess revenue was less satisfactory, as the current demand decreased by nearly a lakh, chiefly owing to a slump in the coal and mica trades in Manbhum and Hazaribagh.

The amount of land revenue and cess remitted by money-order continued to decline, nor was there any marked advance in the payment of land revenue by cheque. It is evident that the system has not yet been generally appreciated by zamindars, for reasons which are not apparent.

Relations between landlords and tenants.

Relations between landlords and tenants were, on the whole, fairly satisfactory, except in the Patna division, where the system of produce rents has led to considerable friction. In Muzaffarpur, numerous petty disputes were attributable to uncertainty over the initiation of revisional settlement operations; in Bhagalpur, disagreements occurred over lands rendered unfit for cultivation by the recession of the river Kosi and there was also considerable ill-feeling owing to the resumption of newly-accreted lands in the Ganges Diara by the Barari estate; while in Cuttack, the tenants were embittered by the institution of suits for enhancement of rent by the Aul estate. On the other hand, in the Balasore portion of the Kanika estate there has been a considerable improvement in the relations between the tenants and the proprietor, and in Monghyr the general attitude of mutual distrust showed signs of giving way to better feelings, especially between landlords other than *Babhans* and their tenants. Conditions in Chota Nagpur have generally improved, with the increased knowledge on the part of the lower classes of their rights, but in Palamau the *kamiauti* system continues and the levying of *begari* has not entirely disappeared.

Payment of rent by money-order.

Owing to refusals on the part of landlords to accept rent or to grant receipts for rent accepted, tenants have, for some years past, been permitted to remit their rent by money-order. There has, however, been considerable reluctance to take advantage of this facility and the number of money-orders issued has shown a progressive decline from year to year. The system is apparently chiefly used by tenants whose rent is disputed, and consequently the percentage of refusals by landlords is high. During the year under report, the number of rent money-orders issued fell from 36,354 in the previous year to 31,291, though it is satisfactory to note that the percentage of refusals also fell.

The decrease in the issue of money-orders was attributed in one district to realization of rent under the certificate procedure, in another to better feelings between landlords and tenants and in a third to the enforcement of revised rates of rent with retrospective effect, which led to tenants preferring to deposit their rents personally.

Government estates.

Out of a total of 122,053 revenue-paying estates, the number under the direct management of Government was 347, and of the total current revenue demand of Rs. 158.65 lakhs, Rs. 22.36 lakhs came from Government estates. The cost of their management was just under ten per cent. of the demand, a slight increase over the previous year's percentage, due mainly to increased expenditure in connection with the rent settlement of the Khurda Government estate. A sum of more than Rs. 1½ lakhs was spent by Government, in its capacity as landlord, on sanitary and agricultural improvements during the year, and grants were, as usual, distributed for the spread of primary education and the improvement of communications.

The condition of the tenantry in Government estates was generally satisfactory. There were excellent crops in the estates in Orissa, Singhbhum, the Santal Parganas, Darbhanga and Manbhum. In one or two estates, however, there were signs of economic distress. In the Bhadrak *khasmahals*, a few villagers were still so affected by the floods of previous years that they were unable to repay their instalments of *takavi* loans and advances for the reconstruction of houses. There was local distress in Saran owing to the failure of the paddy crop, in Purnea to the low price of jute, and in Palamau to the successive failure of the lac crop during the last three years. In Monghyr, the raiyats were unable to recover from the failure of the *rabi* crop in the *diara* estates during the previous year, and some of the inland estates in the district suffered from inundation. In Ranchi, the lac and paddy crops were below normal and in Hazaribagh neither the *bhadai* nor the winter crops were satisfactory, though the raiyats were, as usual, able to earn good wages by working in mica mines and collieries.

Wards, Trust and Encumbered estates.

The administration of these estates during the year presented no exceptional features. The number under the management of the Court of Wards at the beginning of the year was 77. Five new estates, two in Palamau and one each in Sambalpur, Purnea and Hazaribagh were brought under the charge of

the court, and seven, including four in Ranchi, one in Palamau and two in Shahabad were released, leaving a balance of 75 estates at the close of the year.

The total demand for Government revenue and cesses including arrears, was Rs. 11.84 lakhs, of which Rs. 11.61 lakhs was realized. All estates discharged their liabilities except two, which defaulted for want of funds. The payment of rent and cesses to superior landlords was 85.3 per cent. of the demand. Disputes regarding title were responsible for the greater part of the balance of Rs. 10,423 which remained outstanding at the end of the year.

The current demand for rent and cesses due to estates under management was Rs. 55.04 lakhs and the arrear demand Rs. 21.03 lakhs. The total collections amounted to Rs. 55.68 lakhs, more than 100 per cent of the current demand. The standard percentage of 100 was reached or exceeded in 31 estates. Short collections were due in some estates to natural calamities, such as failure of crops and damage by floods, in others to depression in the coal and mica trades, and in others to inefficient management.

Satisfactory progress was made in the discharge of debts due from estates. The total liabilities were reduced by Rs. 43 lakhs, mainly owing to the liquidation of the debts of the Banaili estate, amounting to about Rs. 40 lakhs, by the sale of a 3-annas share of the estate to the co-sharers. A further reduction of nearly Rs. 1½ lakhs was effected in the debts of the Ramgarh estate.

The cost of management of these estates is slightly higher than that of estates managed directly by Government owing to the special staff employed and the special measures necessary for the realization of arrears. The limit prescribed for management charges is 15 per cent of the current demand, which was during the year exceeded by only seven small estates. The total percentage for the whole province was 13.09 per cent.

Their expenditure on schools and dispensaries.

The total expenditure on schools, dispensaries and charities, the standard for which is one per cent of the current demand, increased from Rs. 1.98 lakhs to Rs. 2.4 lakhs. The increase was most marked in Tirhut, where the Bettiah estate maintained a high school and a Sanskrit school, made liberal contributions towards the maintenance of certain other schools and spent over Rs. 2,000 in scholarships. The Ramgarh estate in Hazaribagh continued to maintain one middle English school and

is about to take over the maintenance of another; it also increased its contribution to dispensaries by nearly Rs. 10,000. Last year, the estate set aside a sum of Rs. 75,000 for the construction of a women's ward in the Hazaribagh Sadr Hospital. It has now been decided that in place of this contribution, the estate will take over from the Hazaribagh District Board the maintenance of four dispensaries for three years from 1929-30.

The standard fixed for expenditure on agricultural and sanitary improvements is three per cent of the total income from rent and cess. The total expenditure during the year increased from the previous year's figure of Rs. 1.67 lakhs to Rs. 2.09 lakhs. There are indications, however, that still more could be spent on improvement which are of permanent benefit both to the estates and to their tenants; in many estates the expenditure on improvements fell short of the budget provision. An agricultural scheme was sanctioned during the year in the Bettiah estate, which provides for the establishment of two large farms, one for seed-testing and demonstration and one for the growing of crops, and of several smaller farms for seed-testing and experimental work. Other estates undertook agricultural experiments and demonstrations on a small scale with satisfactory results.

Survey and settlement.

As the land revenue in most of the province is permanently-settled, survey and settlement operations are not, in this province, ordinarily undertaken, as in other parts of India, for the purpose of assessing the land revenue. Their object is to obtain, and periodically revise, both for landlords and tenants, a clear and impartial record of their respective rights and a fair settlement of their rents. Since the province was started, the department has surveyed over 33,000 square miles and has settled the rents of nearly three million tenants.

During the year ending 30th September 1929, revision settlement operations were continued in the districts of Balasore, Cuttack, Puri, Ranchi and the Santal Parganas; and original operations in the Kosi diara tract of the Purnea and Bhagalpur districts. The traverse survey of the Porahat estate in Singhbhum was also taken up as a preliminary to revision survey and settlement. During the year, a total area of 1,662 square miles was cadastrally surveyed, the records of 2,456 square miles were attested and the rents of 366,580 tenants were settled. A conference of settlement officers was held at Ranchi to discuss possible means of reducing the cost of settlement. Several important changes and improvements of procedure in matters of detail were

agreed upon, which are likely to result in substantial economy without loss of accuracy.

The Air Survey Company photographed a small area in the Santal Parganas during the year at its own expense. Maps of the last settlement of the same area were sent for comparison to the company, in order to bring the photographs to the correct scale. As the result was not satisfactory, owing possibly to the distortion of the maps by shrinkage, fresh prints were taken from the original maps and supplied to the company. On receipt of the company's report it should be possible to decide whether a revision survey can be done by air-photography without the need of a traverse to bring the photographs to the proper scale.

Forests.

The forests under the administration of Government are divided into two main classes: 'reserved' forests which are maintained with the object of developing their commercial possibilities on as scientific and up-to-date lines as possible; and "protected" forests, whose primary function is to supply the agricultural population with small timber and grazing, with as few restrictions as are compatible with the maintenance of the forest. At the end of the year under report, the area of the reserved forests was 1,799 square miles, and of the protected forest area, 1,952 square miles. Of the protected forest area, 1,271 square miles were under the Forest Department and 681 square miles under the control of Civil Officers.

Denudation of forests.

It is estimated that nearly 57 per cent of the timber and fuel removed from forests administered by Government is taken from protected forests for the benefit of the agriculturists. Formerly this demand was met by unregulated fellings, which resulted in a great reduction of available supplies, the deterioration of the growing stock and in many cases actual denudation of the forest. In order to insure a sustained supply of suitable small timber and to mitigate the destruction of these forests it has been the policy of Government to place them gradually under simple working schemes, limiting the felling to definite annual areas and regulating the replenishment of stock in some cases by sowings and planting. So far, out of 1,952 square miles of protected forest, 405 square miles are now subject to these working plan regulations.

In private forests, cutting and felling have been subject to no control and the indiscriminate clearing of forests in Chota

Nagpur has undoubtedly affected both the climatic and the sub-soil conditions, and the consequent increased run off of water from the land during the monsoon has resulted in the loss of the top soil, which alone contains the necessary plant food. The result has been in many areas a serious deterioration in the fertility of the soil. There are signs, however, that the owners of private forests are awakening to the value of forest conservation and several landholders in Chota Nagpur are taking steps to bring their forest under the supervision of the department.

Protection of forests.

One of the most important protective activities of the department is to guard forests against fire. Fire protection measures consist of the clearing of fire traces, the early burning of interior and exterior fire lines and the employment of fire patrols in the fire season. The area under systematic fire protection has gradually been extended and during the past five years has increased from 1,387 to 1,532 square miles. The year under review was not favourable to fire protection owing to the late break of the monsoon, but the precautions adopted resulted in better protection than in the previous year. There were 90 outbreaks of fire against 91 in the previous year and the area affected was 36,903 acres, nearly 4,000 acres less than in the previous year.

Other protective measures include the prevention of offences under the Forest Act and the restriction of grazing in both reserved and protected forests. The number of offences reported during the year was somewhat above the average of that of previous years, particularly in respect of cases of unauthorized felling of timber. The percentage of conviction, which was 76, was also slightly higher than the previous year's figure of 73. The increase was attributed to better supervision and detection by the protective staff.

The department has pursued a generous grazing policy. All forests, with the exception of 613 square miles, are now open to grazing for the whole or part of the year, the available grazing grounds having been increased by 555 square miles in the last five years. Grazing is naturally more restricted in the reserved forests than in the protected area. Half the protected forest area is open for the whole year to all animals and four-fifths of the remainder to all animals except sheep and goats; only ten per cent is closed to all animals for the whole year. Of the reserved forest area, 27 per cent is closed to all animals for the whole year.

the remainder being open for the whole or part of the year to all animals except sheep and goats.

Communications and buildings.

In order to make the fullest possible use of the resources of reserved forests it is essential that communications should be adequate, as these forests are largely situated away from the main routes. The construction of forest roads and bridges has considerably developed in recent years; during the past five years, the average annual expenditure has been higher by over Rs. 5,000 than during the previous quinquennium. In the year under review 76 miles of roads and bridle paths were laid down at a cost of Rs. 30,037 and a sum of Rs. 36,097 was spent on the repair of existing roads.

The improvement of communications has considerably facilitated the transport of timber, and trade has increased in consequence. In spite of a reduction in the outturn of timber and fuel, due to a slump in the timber trade, from an average of over 19 million cubic feet during the period 1919—24 to an average of 10 million cubic feet during the past quinquennium, the revenue from sales of timber has increased considerably during that period.

The unhealthiness of the conditions in which the forest staff work has emphasized the necessity for the construction of adequate buildings for their accommodation and for the provision of a supply of pure water by the excavation of wells in suitable localities. Though the figures for the past year show that the health of the staff is still poor, the department has made material progress in its building programme. During the last five years, the average annual expenditure on buildings has been Rs. 80,555 and on wells Rs. 9,946, against an average of Rs. 65,224 and Rs. 5,654 respectively during the preceding quinquennium. An extensive housing scheme has been drawn up which is being put into effect as funds permit.

Propaganda.

Perhaps the greatest difficulty with which the department has to contend is the hostility towards forest conservancy not only of the agricultural classes but even of the more intelligent section of the public. The agriculturist resents any restriction of his liberties in his village forests and is, as a rule, incapable of appreciating the reasons for them; while the attitude of the educated classes is exemplified by the repeated attacks on forest policy which have been made in the Legislative Council

during recent years. Efforts have been made to counter this attitude by giving publicity to the objects and methods of the department. Vigorous propaganda work is being undertaken and a scheme has been sanctioned for the delivery of lectures by selected forest officers at educational centres, illustrated by magic lantern slides. That these efforts are already bearing fruit is apparent from the fact that seven owners of private forests applied during the year for the inspection of their forests and four others for their reservation under section 38 of the Indian Forest Act. Applications were also made for the inspection of village forests in the Ranchi district, but the officer who visited them had to report that in many cases the forests were damaged beyond possibility of systematic treatment.

Research work.

Experimental work during the year was concentrated mainly upon research into the natural regeneration of *sal*, and a new scheme of investigation, involving the classification of *sal* forests into three main types, was introduced. Experiments were also continued in the artificial regeneration of *sal*, and in the seasoning of several kinds of timber, which are at present considered to be of little use for commercial purposes. Investigations which have been made in the Kolhan regarding the possibility of forming sabai grass plantations, have yielded sufficiently encouraging results to justify the hope that plantations of this grass, which flourishes on poor and shallow soil, may, in addition to providing a source of revenue, become a valuable means of arresting the erosion of the soil which is taking place in forest areas.

Progress with lac plantations continued and two new plantations were started during the year, one in the Santal Parganas and one in Singhbhum; in addition a reserved forest area in Sambalpur containing a large number of *palas* trees is being converted into a lac area. A large proportion of the Rs. 7 crores worth of shellac which is annually exported from Calcutta originates from Bihar and Orissa, and it is hoped that the research work which is being undertaken by the department will help the pure product to compete successfully with the synthetic substitutes which are coming on the market in increasing numbers.

Financial results.

There has been a steady increase in forest revenue in recent years. During the year under review, the revenue amounted to Rs. 10,97 lakhs, against an average of Rs. 9.95 lakhs during the last five years. Expenditure during the year amounted

to Rs. 8.5 lakhs, so that there was a surplus of Rs. 2.47 lakhs on the year's working. The profit and loss account shows a net profit of Rs. 1.4 lakhs, which represents a return of 18 per cent on the working expenditure of Rs. 7.74 lakhs.

Canals.

The province contains four main canal systems, namely, the Son, Orissa, Tribeni and Dhaka canals, for the management of which the Irrigation Department is responsible. The Son and Orissa canals, which are used for navigation as well as for irrigation, irrigated during the year an area of about 800,000 acres; the Tribeni and Dhaka canals, which are used for irrigation only, irrigated about 95,000 acres. The traffic on the Son and Orissa canals has been considerably reduced in recent years, owing to the extension of the railway system. During the year under report, receipts from tolls amounted to Rs. 1.32 lakhs against an average during the previous triennium of Rs. 1.63 lakhs.

The Irrigation Department also manages three minor canal systems, the Teur canal, the Orissa coast canal and the Saran canals. The Teur canal irrigates an area of about 3,000 acres in the Champaran district; the Orissa coast canal, which is a continuation, 95 miles long, of a similar construction in Bengal is used for navigation only; and the Saran canals have been closed since 1894, when the main stream of the river Gandak shifted its position.

Their financial working.

The revenue derived from canals is credited to the local Government, who meet all expenditure in connection with them and pay annually to the Government of India the interest on the portion of the capital cost originally expended by the central Government. Except in the case of the Son canals, the annual interest charges are considerably higher than any profit which the year's working may show. During the past year, the net revenue from the Son canals was Rs. 9.19 lakhs, while, including interest charges, the Orissa canals were worked at a loss of Rs. 8.35 lakhs. The other two canals showed a profit of Rs. 1.35 lakhs on the working, excluding interest charges. The Orissa coast canal was also worked at a loss and its abandonment and the dismantling of portions which interfere with flood drainage is under consideration.

Embankments.

In addition to the maintenance of canals the Irrigation Department is responsible for the upkeep of embankments to control and prevent floods and for drainage works. The

total expenditure on embankments during the year was Rs. 3.01 lakhs against Rs. 3.80 lakhs in the preceding year. Of this sum, Rs. 2.95 lakhs was spent on ordinary repair work and on making good the damage caused by floods. The total length of embankments maintained was 832 miles.

Floods.

After successive disastrous years the Orissa districts enjoyed comparative immunity from floods. In the rest of the province the only areas seriously affected were the districts of Muzaffarpur and Darbhanga. Excessive rain during the early part of the monsoon swelled the rivers in North Bihar, which rose above their banks and flooded over 1,000 square miles in the Sadr and Sitamarhi subdivisions of the Muzaffarpur district. The first flood, which occurred in July, caused considerable damage to the *bhadai* crop, but its effects were not so serious as they might have been, as the flood occurred early enough in the season to leave sufficient time for a fresh transplantation of the rice-crop. This flood was followed by another in the same area in August, which was more serious as it fell less rapidly. The two floods resulted in the loss of about 75 per cent of the *bhadai* crop and serious damage to about 50 per cent of the winter crop. Relief was afforded by the immediate distribution of *takavi* loans, which enabled the cultivators to transplant a considerable amount of their rice-crop. Fortunately there was no loss of human life or cattle or of stored grain and little damage was done to house property, though the roads and bridges in the affected area suffered severely. The amount distributed in *takavi* loans was Rs. 37,000, mostly for sowings of winter rice.

The neighbouring district of Darbhanga suffered more severely. The flood started in the first week of August and parts of the Madhubani and sadr subdivisions and the greater part of the Samastipur subdivision remained under water for a fortnight. About 75 per cent of the paddy crop in the affected area was damaged and the *bhadai* crop was almost entirely destroyed. Immediate measures were taken to relieve distress, and gratuitous relief and loans for sowing both rice and *rabi* crops were distributed on a liberal scale by the district officials, actively assisted by local bodies. The amount distributed in Government loans was nearly two lakhs of rupees, and half a lakh of rupees was advanced by co-operative banks; in addition nearly Rs. 12,000 was spent on gratuitous relief and on repairs to houses damaged by the flood. The damage caused to district and municipal roads was estimated at over a lakh.

Orissa Flood Committee.

The committee convened by Government to investigate the flood problem in the three coastal districts of Orissa submitted its report in August 1928. The committee came to the definite conclusion that the measures which had been taken in the past to prevent floods in Orissa had, so far from preventing them, actually increased their severity. Orissa being a deltaic country, the problem was not how to prevent floods, which in such a country were inevitable, but how to pass them as quickly as possible to the sea. The solution of the problem lay in removing the obstacles which prevented the attaining of that result, so far as such a course could be taken in an area which was under habitation.

The committee described how three of the main rivers of Orissa, the Baitarani, the Brahmini and the Mahanadi, in their passage to the sea pass through areas in which their overflow is controlled by numerous embankments, constructed partly by Government and partly by local zamindars. These were either marginal embankments running along the banks of the rivers, or ring *bandhs* completely enclosing villages and estates. They had obviously been constructed solely in the interests of the particular area to be protected, with complete disregard, and in most cases in complete ignorance, of their effects on other areas.

The committee considered that the time had come when systematic action should be taken to remove all obstacles which impeded the free flow off of the water. They realized that the adoption of this policy would lead to the inundation of larger areas, but the inundation would be shallower and would last for shorter periods. The process of removal would have to be a gradual one, commencing from the sea, and the case of each embankment would have to be considered on its merits. Some would have to be demolished altogether, but there were probably some which could be retained and others which could be rendered innocuous by providing escapes and thus reducing their capacity for obstruction. Every embankment marked for permanent retention, however, should be so maintained as to be absolutely secure from breaching even in an exceptional flood, and to offer no obstruction to floods of certain dimensions. The committee were firmly of opinion that it was only by thus removing obstructions to the workings of nature, whether in the form of floods or tides, that the troubles to which Orissa was subject could be alleviated and stable conditions ensured throughout the country.

One of the recommendations made by the committee for the reorganization of irrigation and embankment charges has already been put into effect. The Orissa irrigation circle has been so rearranged that all irrigation works are in charge of a single irrigation division, while all embankments, rivers and drainage channels in the three coastal districts have been put in charge of two embankment divisions. Other schemes for the reorganization of flood protection are still under examination.

CHAPTER X.

Agriculture.

General economic conditions.

There was, on the whole, an improvement in agricultural conditions during the period under review. Considerable damage was done to the standing crops in Muzaffarpur, Darbhanga and Bhagalpur by floods, but there was little economic distress and no lack of employment for agricultural labourers, particularly in Orissa, where good harvests and the absence of floods resulted in a marked increase of prosperity. In two districts in Orissa, however, probably as a result of floods and inferior harvests in recent years, there was a continuance of emigration of labourers to industrial centres such as Calcutta, Jamshedpur and Rangoon in order to secure higher wages. A large number of labourers also emigrated from the Ranchi and Palamau districts, where agricultural conditions during the year were not so satisfactory as in some other parts of the province, to the tea gardens in Bengal and Assam. Stocks of foodgrains in the province at the end of the year were reported to be generally sufficient except in Saran and parts of the Palamau district. Prices, as a whole, were higher than in the previous year in the greater part of Chota Nagpur, but were lower in Orissa, while in Bihar they were practically stationary.

Character of the season.

The year which ended in March 1929 was, speaking generally, a favourable one for the agriculturist. The anti-monsoon showers were below the average, but were useful for sugarcane and for the preparation of land for *Kharif* crops. The monsoon began early in June, and the rain which then fell enabled the *bhadai* crops to be sown early and seedbeds to be prepared for the winter rice-crop. Copious rain fell in July and the transplantation of paddy commenced at the normal time, though upland *bhadai* crops, especially maize, suffered from excessive rain. In August, rainfall was general but was below the normal, except in five districts. There was a long break in the monsoon in September, which severely affected both the *bhadai* and the rice-crops in some districts, but plentiful rain early in October

saved the situation and a good crop of winter rice was assured. Satisfactory conditions for the sowing of *rabi* crops were ensured by good October rains, and the light rain which fell in some districts in November and throughout the province in December was favourable to the growth of these crops.

Bhadai crops.

The outturn of *bhadai* crops was below the average, being estimated at 78 per cent of the past ten years' average, on an area which was three per cent less than the normal. In several districts, the crops were damaged by heavy rainfall and floods, and in others by lack of rain. Weather conditions were unfavourable for maize, the crop of which was estimated at only 62 per cent of the normal.

Jute.

Jute is grown in seven districts of the province, the largest crop being in the district of Purnea. Weather conditions were, on the whole, favourable for the growth of the crop, the gross yield being estimated at 693,000 bales, against 667,000 bales in the previous year.

Indigo and sugarcane.

Indigo is now grown only in five districts of Bihar, where its cultivation has largely given way to that of sugarcane. The total yield last year was only 77,400 lbs., less than half that of the previous year. Sugarcane is cultivated to a varying extent in every district. Conditions were favourable for its production and the crop was estimated at 99 per cent of the ten years' average.

Winter rice.

Conditions for the growth of the rice-crop were favourable in most parts of the province. Though the crop was affected by floods in three Bihar districts in August and by the prolonged break in the monsoon in September, the final estimate was 101 per cent of the past ten years' average, on an area about 6 per cent less than the normal.

Rabi crops.

The chief *rabi*-growing tract is Bihar, but these crops are also of some importance in Cuttack, Palamau and Hazaribagh. Conditions were generally favourable both for the sowing of *rabi* crops and for their growth. Some damage was caused to the crops in parts of Gaya, Shahabad and Palamau by continued rain at the end of January and the beginning of February, and to those in parts of Champaran, Darbhanga and Palamau by hailstorms. The estimate of the wheat crop was 97 per cent of the decennial

average, of spring oilseeds 98 per cent and of other *rabi* crops, including summer rice, gram and barley, 91 per cent. The outturn of the castor crop was estimated at 94 per cent of the past ten years' average.

Progress of the Agriculture department.

The outstanding feature of the period under report was the publication in July of the report of the Royal Commission on Agriculture. Among the more important of the Commission's recommendations which affect this province, may be mentioned those which deal with the opening of an Agricultural College; a better supply of seed and implements to cultivators; increased activities in agricultural propaganda, engineering and research work; and an improvement in the standard of live-stock. These and other recommendations have been submitted to an exhaustive examination and the lines on which the future development of the department should proceed have been clearly indicated. The history of the year is one of steady progress along the lines laid down.

Supply of agricultural improvements.

One of the chief activities of the department consists of the supply of improved seeds, manures and implements to the cultivator. There has been a steady improvement both in the quantity and quality of the experimental work on the various farms and a number of tested improvements are ready for introduction. Special attention has been paid to the question of bringing these improvements within reach of the cultivator. Though 1,960 maunds of seed and 38,954 maunds of sugarcane sets were supplied to cultivators by the farms and depôts of the department during the year, the supply was considerably below the demand. Steps have, however, been taken to improve the supply organization. More adequate stocks have been arranged for, a scheme of selected growers for multiplication of improved seed has been started, and the sanction by Government during the year of a permanent advance of one lakh of rupees has enabled the officers of the department to carry suitable stocks of seeds, implements and manures for sale to agriculturists.

The aid of co-operative societies has also been enlisted in promoting agricultural propaganda and supply services. In consultation with the Registrar of Co-operative Societies, it was decided that central co-operative banks should be invited to concentrate their efforts in two directions, namely the improvement of facilities to members of primary societies for obtaining improved seeds,

implements and manures on credit, and the promotion of agricultural propaganda among primary societies by trained *Kamdars*. A gratifying response has been received. All the central banks have agreed that they should do more for the supply of agricultural improvements, and many of them have agreed to maintain *Kamdars* and have, in some cases, already engaged them.

Agricultural propaganda.

The development of agricultural propaganda has received considerable attention during the year. The most important form of propaganda consists of the carrying out of actual demonstrations on cultivators' own fields by *Kamdars*, or farm labourers trained for propaganda work. The total number of *Kamdars* employed by the department during the year was approximately 100. A scheme has been worked out to increase their number by 30 every year for the next five years, but is likely to be delayed owing to lack of funds. The existing staff, however, were able to carry out as many as 3,603 demonstrations on cultivators' fields during the year. An interesting new type of propaganda has been started in North Bihar. In order to demonstrate the use of improved seeds and implements, a peripatetic party of ten *Kamdars*, each provided with a pair of bullocks, a cart and a set of implements has travelled from village to village carrying out demonstrations on cultivators' own fields, thus initiating a campaign for the improvement of farming which is likely to have far-reaching results. In Chota Nagpur, the experiment is being tried of carrying on intensive propaganda in a single revenue thana with a party of six *Kamdars*, who carry out demonstrations in each village of the thana. In the succeeding year, four of the *Kamdars* will be withdrawn for work in a second thana, leaving two men to consolidate the progress already made. In this way, it is hoped eventually to work round a district once in every five years, but the scheme for its full development requires a larger number of *Kamdars* than are at present available. In South Bihar, two agricultural implements in use in the Central Provinces have been introduced with certain modifications, and these are already in demand for dealing with the difficult black cotton soil near Gaya.

The question of an increase in the number of farms has received the attention of Government. The Agricultural Committee of 1921 recommended that a farm should be established in each subdivision and that propaganda work should be based on these subdivisional farms. This policy received the approval of Government but its development was delayed by financial

limitations. It was decided, however, that, as a preliminary, a farm should be provided in every district or similar area and that the general programme of subdivisional farms should then be proceeded with as funds permitted. There are now only three districts in the province without a farm. The establishment of farms in those three districts has already been sanctioned and will be effected when funds permit. Attention has also been paid to literary propaganda. The department issued, during the year, eleven popular pamphlets in English and in the three principal vernaculars of the province, dealing with special crops such as groundnuts and sugarcane, special manures and simple agricultural implements, and ensilage.

Agricultural Engineering.

The demand for the services of the engineering branch of the department for the improvement of wells increased during the year. Owing to the number of pending applications for borings, a supplementary grant was given in August 1928 for additional equipment and further provision has been made in the present year's budget, including an increase in the staff of borers. The number of small 2½" borings made in village wells during the year was 303, against 290 in the previous year. Of these borings, 268 or 88 per cent were successful. The number of tube-wells successfully completed increased from 12 in the previous year to 19 in that under review. At the close of the year, applications for the boring of 16 tube-wells were pending, so that the new plant will be fully occupied throughout the working season. Experimental work on the economics of tube-well cultivation has been started on the Sabour farm, which will supply accurate data regarding the quantity of water required for various crops, the cost of pumping and the net outturn. As a result of this experiment " Pusa 52 " wheat yielded a general average of 23 maunds per acre on the best plots, a yield which compares favourably with that of the best wheat tracts in India. Government have now under consideration the purchase of a drilling machine, which will enable tube-wells to be sunk through thin layers of rock, and will make artificial irrigation possible in Chota Nagpur. Some progress has also been made in the erection of water-lifting plant. During the year, a pumping installation was completed which discharges 90,000 gallons an hour and has brought under cultivation some 600 acres of land. A portable pumping plant was installed for the Bhagalpur Central Co-operative Bank, which is capable of irrigating six acres a day and a similar installation was put up for an individual cultivator in the same district, which irrigates three acres a day. *Rahat* pumps, on the model of the

Persian wheel, continued to grow in popularity and 63 were supplied and installed during the year by the Agricultural Engineer, while a further 37 were installed by local firms with his assistance. Useful work has also been performed by the engineering section in the surveying of embankment and drainage schemes. Thirty-two schemes were inspected and surveyed during the year, and work was commenced on 17.

Artificial fertilizers.

A gradually increasing amount of information is being obtained regarding the manures required by various crops in different parts of the province. The use of manures such as ammonium sulphate and ammophos is steadily increasing and there is a large demand for gypsum in the Gaya range. In the Patna division alone, 6,500 maunds of ammonium sulphate were sold during the year, while in the Gaya range over 2,000 maunds of gypsum were issued by co-operative societies or by the department. Careful experiments in the manuring of sugarcane and wheat have been made at the Sipaya farm to determine the most profitable nitrogen-phosphate ratios and interesting results have been obtained which, however, require confirmation in subsequent years. An experiment is also being made to test the value of fish-refuse, which is available in appreciable quantities in Orissa, as a manure for sugarcane. It has already shown successful results as a manure for cocoanuts and tea.

Research work.

Much accurate work has been carried out on the experimental farms, but only limited provision at present exists for research in the strict sense of the word. Except in regard to rice, the department is mainly dependent on research carried out at Pusa and Coimbatore for the material for its work. A certain amount of work has been done on the improvement of paddy, but a proper botanical survey and classification of the existing kinds of rice is badly needed. Two schemes for research in rice and sugar have been drawn up and considered by the newly-formed Bihar and Orissa Agricultural Committee and have been submitted to the Imperial Council of Agricultural Research for the grant of funds wherewith to finance them. A systematic attack on the problems presented by these two crops, the one the most important and the other the most paying crop in the province, is one of the most vital needs of the department.

Agricultural education.

One of the most important of the recommendations made by the Royal Commission on Agriculture was for the opening of an Agricultural

The Veterinary College, Patna.

College in this province. The Commission laid emphasis on the necessity of such a college being viewed as an integral part of the system of higher education in the province. The question of starting an Agricultural College affiliated to the Patna University and teaching a broadly cultural course up to the degree standard is now under consideration, and a detailed scheme will shortly be worked out. Until the College is established, the training of the staff of the department is likely to present considerable difficulty. Much, however, has been done by the institution of two scholarships, tenable at the Nagpur Agricultural College for four years by residents of the province who have passed the Intermediate Science Examination of the Patna University. The scholarships will be awarded annually for the next three years, and those who complete the course satisfactorily will be employed in the Agricultural department. A similar scheme is under consideration to send two scholars to the Cawnpore Agricultural College.

Cattle-breeding.

The whole policy of the department as regards cattle-breeding has been reviewed during the period under report in the light of the recommendations made by the Royal Commission on Agriculture. Government have decided that all live-stock operations will be controlled in future by the Director of Agriculture with the exception of the Patna Cattle-breeding and Dairy Farm, which will remain under the Veterinary department. Excessive attention has been paid in recent years to milk production at the expense of the production of bulls for the improvement of draught animals. It has therefore been decided at the Cuttack Farm to pay particular attention to the improvement of working cattle, while the Kanke herd, which has reached a high standard of excellence in milk-yield, will be reserved for milk production. Experience has shown that cross-bred cows from imported stock do not give satisfactory results, and efforts will be made to try and improve the different indigenous breeds.

Veterinary education.

The buildings of the new Veterinary College at Patna were almost completed before the close of the period under review. The College was to have been opened in July 1929, but it was not found possible to recruit the necessary staff in time for the opening, which was accordingly postponed for a year. Meanwhile, the arrangement with the Government of Bengal for sending boys from this province to the Bengal Veterinary College at Belgachia continued, and ten students from Bihar and Orissa joined the College during

the year. The total number of Bihar and Orissa students at the College during the year was 53, the same number as in the previous year.

Cattle-disease.

Though disease was considerably less prevalent than in the previous year, the number of deaths was almost twice as great. The total number of outbreaks reported was 6,852 against 8,394 in the previous year; the number of deaths on the other hand was 27,767 against 14,251. The heavy mortality was largely due to a very virulent outbreak of rinderpest in Orissa; while one of the factors largely accounting for the decrease in the number of outbreaks was the non-appearance of foot-and-month disease in a widespread form in Orissa, where this form of disease is usually prevalent. Conditions in North Bihar were more constant, the number both of outbreaks and of deaths remaining practically the same as in the previous year. The total number of animals affected throughout the province was only 114,566, against 200,075 in the previous year, thus indicating that though the outbreaks were virulent they appeared in a concentrated form. Of the 6,852 outbreaks reported, 5,970, or 87 per cent, were attended by the subordinate staff. The fact that the number of deaths was so large, in spite of such a high proportion of attendance, affords additional testimony to the intensity of the outbreaks.

Preventive inoculation.

It is evident that the economic value of the inoculation of cattle against disease is being realized by the cultivator to an increasing degree. The number of inoculations performed increased from 245,532 in 1927-28 to 328,153 in 1928-29, the increase being particularly marked in the Orissa and Central Ranges, where the number of inoculations was almost doubled; in North Bihar, there was a slight decrease. Government found themselves able to grant a sum of Rs. 24,000, in addition to the ordinary provision of Rs. 5,000 in the veterinary budget, for distribution to district boards for the purchase of sera and vaccine; but until the boards can afford to increase their allotment on this account, further progress is likely to be considerably hampered.

Treatment of disease.

The number of animals treated by touring veterinary assistant surgeons decreased by over 20,000, the decrease being shared by Orissa and the Central Ranges, which suffered less from foot-and-mouth disease than in the previous year. The number of veterinary hospitals remained the same as in the previous year, namely 31, while the

number of veterinary dispensaries increased from 92 to 100. There was also an increase in the number of animals admitted to veterinary hospitals, which rose from 51,505 in 1927-28 to 56,525. Though there was a slight increase from 123 to 128 in the number of veterinary assistants employed on district work, the staff is still too small to ensure that all outbreaks are checked and prompt and efficient service rendered to all diseased animals. The Royal Commission on Agriculture has emphasized the necessity of a large increase of veterinary staff, but no appreciable increase is likely to be effected until the financial position improves.

Breeding operations.

An important decision with regard to the control of live-stock was reached during the year as a result of the recommendations of the Royal Commission on Agriculture and of the Provincial Development Board. Hitherto the control of live-stock has been shared by the Veterinary department, which purchased bulls and cows, organized cattle fairs and advised Government on the subject of the improvement of cattle, and the Agriculture department, which started and maintained several cattle-breeding and dairy farms in the province. It has now been decided that the general control of live-stock operations will rest, in future, with the Agriculture department, while the Veterinary department will continue to control the Patna Cattle-breeding and Dairy Farm, which will be attached to the new Veterinary College. It was also decided that the Veterinary department would continue its important work of improving the standard of live-stock by the elimination of scrub bulls. During the year, special attention was devoted to this operation, particularly in North Bihar, and the total number of castrations performed was 33,667 against 7,931 in the previous year. Most of the castrations were performed by the improved Burdizzo method.

The Patna Cattle-breeding and Dairy Farm continued to make satisfactory progress during the year. The strength of the herd increased from 361 to 462 animals, including 4 stud-bulls and 169 cows. The total milk-yield was 218,374 lbs., and a sum of Rs. 21,139 was realized from the sale of 203,100 lbs. of milk and 2,848 lbs. of cream. An area of 259 acres of land was cultivated by the farm agency, with a resultant output of 23,013 maunds, valued at Rs. 17,034. There was a marked increase in the income of the farm which amounted to Rs. 27,988 against Rs. 9,485 in the previous year. The farm has recently been put under the control of an Indian manager, who has acted as a live-stock inspector and has undergone a year's training in cattle-breeding and dairy-farming at Bangalore, Anand and Karnal.

Prevention of cruelty to animals.

An important step for the humane treatment of animals was taken during the year, by the inauguration of the Bihar and Orissa Society for the prevention of cruelty to animals, which came into existence in August 1928 under the patronage of His Excellency the Governor and Lady Stephenson. Donations have been received from several notable persons, including one of Rs. 5,000 from the late Maharajadhiraj of Darbhanga. The Society now has an inspector of its own and hopes to open up branches at convenient centres as soon as funds permit. An inspector under the Cruelty to Animals Act is also employed by the Patna City municipality. As a result of his efforts to raise the standard of treatment of animals, there was an appreciable decrease during the year in the number of prosecutions which had to be instituted under the Act.

Progress of the co-operative movement.

The co-operative movement continued to progress on sound lines during the year. The number of societies of all descriptions increased by 601, the total number at the end of the year being 9,188. The total membership increased by over 12,000, working capital by nearly Rs. 63 lakhs, and profits by Rs. 1.2 lakhs. The expansion was practically confined to new areas, and the increase in the number of societies in the older banks was very small, owing to the policy these banks have recently pursued of consolidation and improvement of existing societies rather than the formation of new ones. Deposits increased by only Rs. 5 lakhs against an increase of Rs. 21 lakhs in the previous year, from which it appears that the action taken to prevent central banks from accumulating deposits far in excess of requirements has been effective.

Provincial Bank.

The apex bank of the movement is the Bihar and Orissa Provincial Bank. The working capital of this bank increased during the year from Rs. 57 lakhs to Rs. 66 lakhs and the bank made a record gross profit of Rs. 1,02,000 against Rs. 77,000 in the previous year. The demand for loans increased by about Rs. 15 lakhs during the year, chiefly owing to increased demands on the part of central banks. In order to meet these heavy demands, the bank had to withdraw over Rs. 5 lakhs from its investments in Government and Trust securities and from the amounts deposited with other provincial banks. The amount of overdues from central banks showed a satisfactory reduction from Rs. 1.54 lakhs to Rs. 1.24 lakhs.

The construction of a new building for the bank was completed after the close of the year when it was formally opened by His Excellency the Governor.

Central Banks.

The number of central banks increased by two during the year, bringing the total to 67. There was a further improvement in their financial position. The working capital increased by Rs. 20 lakhs, and the proportion between owned and borrowed capital also improved. The policy followed by the department to guard against unnecessary acceptance of deposits has had its effect, and deposits only increased by about a quarter of a lakh. The figures show that there was a decrease of Rs. 3 lakhs in deposits by zamindars, coupled with a corresponding increase in deposits by agriculturists, a healthy sign. Most banks have now reduced their rate of interest to 6 per cent and it is hoped that the remainder will soon follow their example, and that the excessive surpluses which have accumulated in recent years will before long be materially reduced.

In addition to financial progress, a considerable advance has been made by as many as 48 central banks in the development of agricultural activities by means of propaganda and demonstration work and the distribution of improved seeds, agricultural implements and fertilizers. For instance, five banks maintained agricultural inspecting clerks and several others employed trained *Kamdars* for demonstration work; one central bank started a peripatetic exhibition of improved implements; while two others secured agencies for the sale of sulphate of ammonia and sold between them 1,600 maunds to their members. Some central societies were able to grant loans to their members for purposes such as the reclamation of waste land, the sinking of wells and the construction of *bandhs*. In addition, many societies have interested themselves in sanitation, medical relief, education and the promotion of cottage industries such as *eri*-culture; though it is disappointing to note that the measure of assistance given by district boards in spreading education through the agency of co-operative societies has not been encouraging.

The whole question of collaboration between Co-operative Societies and the various departments of Government is of great importance. It has, since the close of the year, been closely examined by Government, in conjunction with the heads of the departments concerned, in the light of the recommendations of the Royal Commission on Agriculture; it is hoped that the conclusions reached will lead to an increasing measure of collaboration and a resultant advancement in rural welfare.

Agricultural societies.

The marked improvement in the standard of efficiency among these societies which was noticeable in the previous year continued to be maintained in the year under report. Though a wholesome check on the starting of new societies continued to be exercised, the general improvement in the state of the co-operative movement enabled 598 new agricultural societies to be started during the year, bringing the total number to 8,532. The share capital of agricultural societies showed an increase of Rs. 1½ lakhs, reserves rose by Rs. 4¼ lakhs and profits amounted to nearly Rs. 4½ lakhs. These figures show that the financial working of these societies during the year was as satisfactory as the improvement in their standard of efficiency. Bad harvests were, however, responsible for a fall in the collection of loans due from societies to central banks from 68.2 per cent to 64.9 per cent, though the figures were well above the previous year's figures of 59 per cent.

Non-agricultural societies.

The working of non-agricultural societies was also satisfactory. The number in existence at the end of the year was 77, an increase of four on the previous year's figure. Profits increased by Rs. 11,000, the total profit earned during the year being Rs. 1.05 lakhs on a working capital of Rs. 22 lakhs. The new societies started during the year included the Pioneer Co-operative Housing Society, formed with the object of relieving the housing problem in Patna; and the Bhagalpur Electric Co-operative Store, which has materially reduced the cost of electric wiring in the town of Bhagalpur.

Classification of societies.

There was some improvement in the classification of primary societies, the number of "model" and "good" societies having increased slightly and the number of "bad" societies decreased. On the other hand, more than two-thirds of the societies are still classed as "average", while the number of "hopeless" societies shows a slight increase, so that there is still considerable room for further improvement.

CHAPTER XI.

Commerce and Industry.

Industrial centres.

The census of 1921 showed that out of 34 million inhabitants in Bihar and Orissa, excluding the Feudatory States, only 2½ millions were supported by industry. Although agriculture is the occupation of a large majority of its inhabitants, the province is exceptionally rich in mineral wealth and possesses great industrial potentialities. The two most important industrial areas are the Jharia coalfield in the Manbhum district and the town of Jamshedpur, which contains the works of the Tata Iron and Steel Company and of the Tinplate Company of India.

Coal.

Coal-mining is the most important organized industry in the province. The total output of coal in Bihar and Orissa in 1928 was just over 14¾ million tons, out of 21½ million tons raised in the whole of India. The coal trade continued to be in a depressed condition throughout most of the year, though there were signs of an improvement during the closing months. Production, however, was not affected, but increased in Bihar and Orissa by 295,000 tons. As in former years, the Jharia coalfield was responsible for the greatest output, namely 10⅝ million tons, a slight increase on its previous years' figures. The output of the Raniganj coalfield, which this province shares with Bengal, was nearly 6½ million tons, a slight decrease, which is in contrast to its progressive increase of recent years. There were marked increases of 13 per cent and 49 per cent respectively in the output of the Bokaro and Karanpura fields, where practically all the collieries are State-owned; the production of the Bokaro field for the first time exceeded two million tons. Labour was scarce towards the end of the year, owing to the excellence of the crops in areas adjacent to the coalfields. This resulted in a slight increase in price, owing to the reduction in raisings of coal. Exports of coal continued to increase. The amount of cargo coal exported from Calcutta during the year was 2,280,492 tons, an increase of 27,000 tons on the previous years' figures. The export

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trade received invaluable assistance from the Coal Grading Board, which continued its work of grading coal and granting certificates of the quality and condition of coal intended for export.

Iron ore.

The total production of iron ore in the whole of India in the year 1928 was 1,206,754 tons, of which Bihar and Orissa produced 1,131,746 tons, or 94 per cent, an increase of 124,709 tons over the previous years' figures. The iron ore mines are situated in the Singhbhum district and the neighbouring Feudatory State of Mayurbhanj. There has been a considerable development of these mines during recent years, and the ore produced is of a high quality. The two chief mines, one at Gorumahisini in the Mayurbhanj Feudatory State and one at Noamundi in the Singhbhum district, are owned by the Tata Iron and Steel Company of Jamshedpur, which is the largest iron and steel manufacturing firm in India, and one of the largest in the world.

Mica, copper and other minerals.

The total output of mica in 1928 was 44,629 cwts, of which Bihar and Orissa produced 35,143 cwts or 79 per cent. The industry has suffered for many years from the prevalence of theft and illicit working of the mineral, which has tended to depress prices and to prevent the sinking of capital in the mines and their development on scientific lines. Prices during the year suffered a further depression of about 10 per cent, mainly owing to overstocking of the market. A Bill to regulate the industry, with the object of preventing theft of mica, was introduced by Government in the Legislative Council in 1927 and was rejected without discussion. Government, however, considered it necessary, in view of the importance of the industry, to bring the matter again before the Council, and after recasting the Bill in the light of criticisms which they had received, they introduced a new Bill after the close of the period now under report. This Bill, in spite of considerable opposition, was referred to a select committee, and Government hope that, if the Bill is passed, it will enable the industry to establish itself on a more satisfactory footing.

The output of copper ore was 18,055 tons, a large increase over the 5,010 tons produced in 1927. The whole of the production came from a single mine at Musaboni in the Singhbhum district, where ore reserves exceeding three-quarters of a million tons are said to have been proved. The Indian Copper Corporation, which owns the mine completed during the year the construction of aerial ropeways to transport the ore across the

river Subarnarekha to its works at Maubhandar near Ghatsila, where a new plant for the production of refined copper has been erected.

Other minerals produced in the province, together with the figures for output in 1928, include manganese ore (23,199 tons), chromite ore (2,165 tons) and steatite (346 tons). In addition 265,476 tons of limestone, representing nearly 19 per cent of the output of the whole of India, were quarried in the Shahabad district; while the whole of the 7,186 tons of china-clay produced in India in 1928 came from the mines in Singhbhum and Bhagalpur.

Mining legislation.

In March 1929, regulations were published in a notification issued by the Government of India giving effect to an important reform in mining conditions. With effect from the 1st of July 1929, the employment of women underground in mines other than coal-mines in Bengal, Bihar and Orissa and the Punjab has been prohibited. In coal-mines in those provinces, women may continue to be employed in the underground workings after that date but their number may not exceed 29 per cent of the total number of persons employed underground. This percentage will be reduced every year by three, until in ten years' time the elimination of women will be complete.

Factories.

The number of factories in the province in 1928 was 261 including 63 rice-mills, 25 oil-mills, 22 indigo factories, 16 lac factories and 13 sugar factories. Nine of the indigo factories remained closed throughout the year. Owing to the competition of the synthetic dye, the manufacture of indigo in North Bihar has very largely given way to that of refined sugar, an industry which offers great possibilities, as is shown by the fact that India imports annually about three-quarters of a million tons of sugar. The manufacture of lac is practically confined to Chota Nagpur and the Santal Parganas, where the crop grows in abundance.

The number of factory accidents was 1,849, a decrease from the previous year's figure of 2,053. The number of serious accidents on the other hand increased from 346 to 420 and of fatal accidents from 36 to 43. Proceedings were taken against the managers or occupiers of five factories for failure to fence machinery and other offences. In one case, failure to fence machinery at a factory, the existence of which had not been notified, resulted in the death of an employee. The gradual decline in the number of women employed in factories continued. The number fell from 6,228 to 5,682, and there was also a

slight decrease in the number of children employed, which stood at 934 at the end of the year. Though the elimination of children is still a very general policy of managers, the figure is maintained by the accession every year of new factories, whose managers at first employ child labour without being fully aware of the disadvantages arising out of the restrictions placed on its employment by the Factories Act.

Department of Industries.

The Department of Industries was created in 1920 in order to develop the various industries of the province. It supervises technical and industrial education, develops cottage industries and fisheries and undertakes, through its engineering branch, the erection of small mills and factories and the installation of plant and machinery. It also administers the State Aid to Industries Act. Functions of an advisory nature are exercised by a Board of Industries which was created in 1920, and reconstituted four years later after the passing of the State Aid to Industries Act. The Board now consists of 20 members, the majority of whom are non-officials representing commercial and industrial interests.

Technical and industrial education.

Technical and industrial education continued to make satisfactory progress during the year. At the Bihar College of Engineering at Patna, there was a slight decline in the number of applicants for admission to the Civil engineering classes. The examination results, however, continued to be satisfactory and nine out of ten candidates passed the final examination for the degree of B.C.E. Applications for admission to the subordinate classes showed an improvement, but the mechanical apprentice class showed a considerable decline in popularity. Government have now under consideration a scheme for the revision of the apprentice classes and the improvement of the existing artisan course. A scheme of reorganization, which includes the provision of degree classes in mechanical and electrical engineering and the transfer of the subordinate classes to the Tirhut Technical Institute at Muzaffarpur, was sent up to Government during the year by the Board of Governors of the College, and is still under consideration.

At the Orissa School of Engineering, the results of the subordinate and sub-overseer examinations were generally satisfactory. Various structural improvements were completed and a large new workshop, which will meet a long-felt want, was nearing completion at the end of the year.

The Tirhut Technical Institute at Muzaffarpur and the Technical School at Ranchi made satisfactory progress. The popularity of the mechanical apprentice classes, as evidenced by the number of new admissions, considerably decreased at both these institutions, though the students previously admitted continued to do well. At the Tirhut Technical Institute, six mechanical apprentices were successful in the final examination and were deputed for practical training to the Saran Engineering Company and the Samastipur railway workshops. At the Ranchi Technical School, seven mechanical apprentices completed their course and were sent for practical training to the Tata Iron and Steel Company at Jamshedpur. The artisan classes, on the other hand, increased in popularity at both schools. The applications for admission to these classes were considerably in excess of the vacancies, and 36 artisan students at each school completed their course.

Aided institutes.

The thirteen aided schools in the province, of which the most important are the Jamshedpur Technical Institute and the Jamalpur Technical School, continued to show good results. At the Jamshedpur Technical Institute, nearly half of the fifty students on the roll were from Bihar and Orissa, and of the twelve students provided with contract appointments by the Tata Iron and Steel Company, four belonged to this province. At the Jamalpur Technical School, all the 356 students in the third grade apprentice classes and 35 boys out of 90 in the class for first grade apprentices belonged to the province. The standard of the boys admitted also showed some improvement. The amounts contributed by Government in aid of these institutions vary. During 1928-29, the Jamshedpur Technical Institute received Rs. 25,000 and the Jamalpur Technical School Rs. 30,000, i.e., 20 per cent of its expenditure. The other eleven schools received between them just under Rs. 17,000.

Scholarships and stipends.

Three State technical scholarships were awarded during the year for training in foreign countries in electrical and textile engineering and in fuel technology. It is satisfactory to note that most of the State technical scholars succeeded on their return from England in obtaining suitable employment. Two scholarships of Rs. 60 a month were awarded for training in the Indian School of Mines at Dhanbad and two of Rs. 45 and Rs. 30 in the Bengal Tanning Institute at Calcutta, which reserves seats for students from this province. In addition twenty-one stipends were granted during the year for training outside the province in subjects such as leather, poultry-farming, dyeing, printing and pottery, for the study of which no facilities are as yet available within the province.

Textile Institutes.

The working of the Cottage Industries Institute at Patna was very successful, and the weaving section made a profit of over Rs. 10,000 after meeting the cost of demonstration and experiment. The total sale-proceeds during the year amounted to Rs. 1.32 lakhs, an increase of nearly half a lakh over the previous year's proceeds. As a result, the net cost of running the institute was reduced by nearly Rs. 9,000. The total value of the goods despatched during the year to the agent in England, increased from Rs. 46,000, the previous year's figure, to Rs. 75,000. A new foreign agency has been started in New Zealand and a proposal to start one in Australia is under consideration.

The Bhagalpur Silk Institute also did useful work, and goods to the value of over Rs. 40,000 were sold during the year. Some new designs were introduced and further publicity was given to the goods manufactured by the institute by sending them, with those manufactured at the Cottage Industries Institute, to exhibitions in different parts of the world, including the British Industries Fair of 1928-29. Sample consignments were also despatched to eight different firms in America, Canada, Germany and New Zealand.

The recently established Wool-Weaving Institute at Gaya trains the sons of *Ganderies*, a caste of hereditary wool-weavers, in handling improved appliances such as warping-mills and fly-shuttle looms and in the use of dyes for the production of new designs in hand-woven blankets. The institution has not so far shown any very material results, owing both to the difficulty of recruiting sufficient students from the *Ganderi* class, which is widely scattered over three districts, and to the severe competition from cheap Italian blankets of inferior material. As, however, the experiment is a promising one, Government have sanctioned its continuance for another five years, by the end of which time it is hoped that the institute will have succeeded in establishing itself on a firmer footing.

Weaving and dyeing demonstration.

The first important step in the development of the hand-weaving industry consists of the gradual replacement of the primitive hand-looms at present in general use by fly-shuttle sleys. In order to popularize the improved type of loom the department maintains ten peripatetic demonstration parties, which go from village to village, fitting up improved looms and demonstrating the weaving of finer counts and of new designs. The use of fast colours is simultaneously demonstrated by dyeing *mistris*.

During the past year, these parties fitted up 3,248 improved looms in 567 villages, taught the weaving of new designs in 101 villages and carried out dyeing demonstrations in 332 villages. A proposal was under consideration at the close of the year to increase the number of dyeing *mistris* from four to ten, so that there should be one *mistri* in charge of each party.

Seri and eri-culture.

The department maintains a sericultural farm at Khunti in the Ranchi district where experiments have been made in connection with mulberry cultivation and silk-rearing. The farm was visited during the year by an officer of the Bengal Sericultural department; and as a result of his recommendations Government have decided to widen the scope of the experiment, which has not hitherto proved a success.

Eri-culture, on the other hand, has made remarkable progress. In Orissa alone, thanks largely to the efforts of some of the Central Banks, as many as 3,000 persons have taken up this pursuit. A central seed supply station has been started since the close of the period under report at Netarhat, for supplying disease-free seed eggs to *eri*-rearers in the province. With the establishment of this station, the increased popularity of the industry, and the strenuous efforts that are being made by the department to provide better marketing facilities, the future prospects of ericulture are promising.

Engineering branch.

The engineering branch undertook and completed the erection of two rice-mills and one button factory during the year. The total fees collected only amounted to Rs. 6,717 against Rs. 8,859 in the previous year. The decrease was, however, more apparent than real, as heavy fees were deposited soon after the close of the financial year. The power plant and other property belonging to the Government Match Factory at Gulzarbagh, which was closed in October 1927, were sold after the close of the period under report.

State-aid to industries.

The Board of Industries held three meetings during the year, at which sixteen applications for State-aid were considered. These included applications, both for cash credit in order to develop small industrial undertakings, such as rice-milling, and for the supply of machinery for oil-pressing on the hire-purchase system. Government have recently emphasized the necessity for a careful scrutiny of each applicant's ultimate chance of success and of the security offered, and several of the applications were rejected by the Board. A few big ventures, to which State-aid has been given during the

last few years, have not proved very successful. The most important of these is the Indian Steel Wire Products Company to which an advance of Rs. 5 lakhs was granted by Government in 1925. The company stopped work in August 1927 and the property was ultimately sold for Rs. 3.2 lakhs, the total loss to Government over the transaction amounting to Rs. 2.7 lakhs. Other aided ventures which have not met with success are the Vishwakarma Mills, which is in liquidation, the Puri Match Industries Company and the Bengal Preserving Company of Muzaffarpur, both of which have failed to pay instalments due to Government.

Fisheries.

The department has for some time maintained a centre for the distribution of carp-fry at Ghatsila in the Singhbhum district. During the year, a second centre was opened at Patna and the propaganda that has been carried out with regard to tank culture has resulted in a largely increased demand for fry. During the year, the total amount of fry supplied amounted to 228,500 against 135,000 in the previous year.

At the request of Government the Director of Fisheries, Madras, visited the Chilka Lake in June 1928 and reported on the feasibility of establishing a biological station on the lake, with the object of controlling and conserving the supply of fish. There are indications from the figures of export of fresh fish from the lake, which have more than doubled during the past five years, that the lake is being over-exploited. The report has been submitted to Government.

The department continued during the year to collaborate with the Co-operative Department in exercising general supervision over the fishermen's co-operative societies in Orissa, and is at present examining a scheme to improve the condition of the *chatsalies* on the Chilka coast by combining elementary education with practical vocational training.

The scientific study of pisciculture has been encouraged by the grant of a scholarship for the training of one student at the Fishery Training Institute at Madras for one year.

Financial results.

The total cost of the department increased from Rs. 8.61 lakhs in the previous year to Rs. 9.42 lakhs. Receipts, however, increased by Rs. 1.52 lakhs so that the net cost was less by nearly three-quarters of a lakh. The cost of technical and industrial education fell by about half a lakh, chiefly owing to reduced contributions

to institutions outside the province, such as the Bengal Engineering College and the Serampur Weaving institution. Expenditure on the textile section, on the other hand, increased by over a lakh, with a corresponding increase in receipts.

Cost of living.

Since 1922, the Industries Department has published figures showing the changes in the cost of living for the working classes in six centres of the province, namely Patna, Muzaffarpur, Monghyr, Jamshedpur, Jharia and Cuttack. Ranchi was added in 1925. The average for the five years ending with 1914 is taken as the normal for each centre. The figures show that the cost of living at these centres has gone up on the average by 65 per cent since the war, the increases being most marked at the two industrial centres of Jamshedpur and Jharia, which show increases of 77 and 73 per cent respectively. A comparison of the cost of living at each centre has also been worked out, taking the cost of living at Patna during the pre-war period as the normal. The figures show that the cheapest centre in the province throughout the year from a working class point of view was Cuttack, while the most expensive was Jamshedpur, followed by Jharia. It must be remembered, however, that conditions at Jamshedpur were abnormal owing to the prolonged strike at the works of the Tata Iron and Steel Company, which had the effect of increasing the prices of foodstuffs at that centre. Taking the mean average of the whole year the cost of living at Jamshedpur was 49 points higher than at Cuttack.

APPENDIX I.

A short summary of the Administration of Bihar and Orissa in 1929.

Changes in the administration.

During the year there were several changes in the personnel of the Government. On the 18th January 1929, Maharaja Bahadur Sir Keshav Prashad Singh, C.B.E., resigned his office as Member of the Executive Council, and was succeeded by the Hon'ble Raja Rajendra Narayan Bhanja Deo, O.B.E. On the 26th April, His Excellency Sir Hugh Lansdown Stephenson, K.C.S.I., K.C.I.E., I.C.S., proceeded to England on leave for four months, and the Hon'ble Mr. J. D. Sifton, C.S.I., C.I.E., I.C.S., Member and Vice-President of the Executive Council, assumed charge as acting Governor, the Hon'ble Raja Rajendra Narayan Bhanja Deo being appointed Vice-President of the Executive Council. The temporary vacancy in the Executive Council was filled by the appointment of Mr. J. T. Whitty, C.I.E., I.C.S., Commissioner of the Tirhut Division. Shortly after the return of His Excellency Sir Hugh Stephenson, the Hon'ble Mr. J. D. Sifton proceeded on four months' leave, and the Hon'ble Raja Rajendra Narayan Bhanja Deo was reappointed temporarily to be Vice-President of the Executive Council, and the Hon'ble Mr. J. T. Whitty was reappointed to be a temporary Member. The Hon'ble Mr. Sifton resumed charge on the 29th December.

On the Transferred side, the Hon'ble Sir Saiyid Muhammad Fakhr-ud-din, Kt., and the Hon'ble Sir Ganesh Datta Singh, Kt., held office throughout the year, in charge of their former portfolios of Education and Local Self-Government, respectively.

Visit of His Excellency the Viceroy.

In January 1929, His Excellency the Viceroy visited the Agricultural Research Institute at Pusa in the Darbhanga district on his way from Calcutta to Delhi and spent a day in inspecting the Institute and the Farm attached to it.

Royal Commission on Labour.

The Royal Commission on Labour arrived in Patna on December 18th and stayed until December 20th. During their stay the Commission examined four official and two non-official witnesses. The official witnesses consisted of Mr. J. R. Dain, I.C.S., late Deputy Commissioner of Singhbhum, who was examined generally on the written memorandum prepared for the Commission by the Bihar and Orissa Government; Mr. W. B. Brett, I.C.S., late Deputy Commissioner of Ranchi, who gave

evidence concerning the recruitment of labour in Chota Nagpur for the Assam tea gardens; the Director of Industries, who was examined regarding family budgets and the cost of living; and the Chief Inspector of Factories who gave evidence connected with the working of the Factories Act in this province. The two non-official witnesses represented the Bihar and Orissa Chamber of Commerce and the Bihar Kishan Sabha respectively.

Feeling between Hindus and Muhammadans.

Though there was still tension during the year between Hindus and Muhammadans there were remarkably few clashes between the two communities and such as occurred were of a comparatively unimportant nature. In several instances, however, there might have been considerable trouble but for the opportune arrival of the police on the scene.

During the celebrations in Patna of the anniversary of the *Arya Samaj* in April, the throwing of brickbats on a passing procession from a Muhammadan house nearly caused a serious disturbance. During the *Bakr-Id* festival no serious trouble occurred, though at Dharampur in Monghyr the police had considerable difficulty in enforcing the right of the Muhammadans to perform *Kurbani*, and at Ghaziapur in the Saran district they arrived in time to prevent a large mob of armed Hindus from attacking the Muhammadans, whom they suspected of being about to sacrifice a cow. Other incidents which occurred during this festival were two minor raids by Hindus on Muhammadan houses in the Champaran district, the rescue by Hindus of some cows which were being taken for slaughter in the Patna district, and the discovery of a dead pig in the *Idgah* in Darbhanga town.

The *Muharram* and *Chehlum* festivals passed off peacefully, apart from one or two minor disturbances between rival parties of the same community. The Hindus in the mufassal participated in the Muharram festival, but kept aloof in the towns. *Mahabiri Jhanda* processions were, as usual, taken out during August in the Saran and Champaran districts, though in Saran the processions were much smaller than in the previous year. In one village in Saran, the Muhammadans prevented a procession from going through their part of the village and there was nearly a disturbance, which was averted by the Hindus deciding to take another route.

During the *Dasahara* festival untoward situations arose in two districts. In the Balasore district, two Muhammadans threw bricks at one of the processions because it continued to play

music while passing the grave of a *pir*, with the result that there was a fracas, in which one or two Hindus were slightly injured. At Chakradharpur in the Singhbhum district, the mutilation of several images by unknown persons led to high feeling on the part of the Hindus, which might have had serious consequences. The efforts of the police, however, succeeded in preventing a disturbance.

Congress activities.

There was a recrudescence during the year of political activity on the part of the Provincial Congress Committee. The provincial delegates who had attended the meeting of the All-India Congress in Calcutta in December 1928, returned in January full of renewed zeal. The working committee of the Provincial Congress at once decided to revive the organization of provincial and local committees which had flourished during the non-co-operation era, and to enrol volunteers up to the number of 300,000 in order to raise funds for the support of the workers. It was also decided, in accordance with instructions issued by the All-India Congress Committee, to inaugurate a campaign, as in non-co-operation days, of boycott of foreign cloth and picketting of liquor shops. Meetings were held to explain the Calcutta Congress resolutions, steps were taken to enrol members and volunteers on payment of four annas each, and the *Swaraj* flag was periodically hoisted. The 10th of March, which had been marked by Congress as " Nehru Report Day ", and the " National Week " in April were celebrated by processions, meetings and the burning of foreign cloth, but the enthusiasm was practically confined to youths and students and there was marked apathy and lack of support on the part of the general public.

Though it had been estimated that the full quota of 300,000 members would be enlisted by April, after which the foreign cloth boycott and the picketting campaign were to start, the number actually enlisted by the end of that month was less than 17,000, of whom nearly half was accounted for by one district, namely Champaran. By the end of May, the number of members, according to the information supplied to the All-India Congress Committee, was claimed to have risen to 30,000, a figure far in advance of that of any other province. The enrolment of members continued till August, when it was alleged that the province had more than fulfilled the quota demanded of it, though other information indicated that less than half that number had actually been enlisted. During the rest of the year there was a lull in Congress activity, broken in some districts by the celebration of " days " such as " Political Sufferers' Day " on August 18th, " Jatin Das

Day " on September 22nd, and " Gandhi's birthday " on October 2nd, all of which were occasions for the hoisting of the national flag, the burning of foreign cloth and the exhibition of revolutionary posters.

Labour unrest.

The chief labour event of the year was the strike at the works of the Tinplate Company of Golmuri, near Jamshedpur, which started on the 8th of April. There had been unrest among the Company's labour for some time previously. Shortly after the conclusion, in September 1928, of the strike in the Tata Iron and Steel works the workers of the Tinplate Company decided to form a regular union of their own. A mass meeting was held for the purpose, the Union was formed and Mr. Daud, president of the Seamen's Union of Calcutta, was elected its first president. The executive of the new Union thereupon proceeded to present a series of demands of a moderate nature to the General Manager, who promised to give them sympathetic consideration. For some time there were few fresh signs of activity on the part of the Union, though the labour atmosphere of Jamshedpur was still somewhat disturbed, as the strike in the Iron and Steel works had only recently been settled and there was considerable rivalry between the old Labour Association and Mr. Homi's new Labour Federation.

The first sign of trouble occurred at the beginning of January, when some of the workmen refused to take their wages on a trivial pretext and were suspended. At the same time the General Manager, acting under instructions from Calcutta, announced that for financial reasons the hours of work would have to be restricted for the present. Mr. Daud, the president of the Union, then interviewed the Manager and later publicly announced that he had secured formal recognition of the Union and a promise to consider the cases of the men suspended, but that a modification of the programme of work restriction was not possible. The General Manager had, however, promised to extend working time as soon as the financial position of the Company permitted. The men were dissatisfied with the moderation of Mr. Daud's attitude, and shortly afterwards he resigned and was replaced as president by Mr. Homi. The latter thereupon proceeded to negotiate with the management and to put forward the claims of the men, which now included the grant of certain concessions similar to those which had been granted to the employees of the Iron and Steel Company when the dispute there

was settled. At the beginning of February, Mr. Homi announced that he had succeeded in negotiating a very liberal settlement with the General Manager, the terms of which he proceeded to publish.

After the announcement of this settlement, work proceeded without interruption for a month, during which time the Company were taking steps to give effect to their agreement. In spite of this, during March, there were lightning strikes on consecutive days, in connection with the refusal of the Company to admit to the works two men who had been discharged for neglect of duty. Though these strikes were settled, the unrest continued and it was now obvious that both inside and outside the Union Executive there was a militant element which was determined to resort to direct action at all costs. The influence of this element prevailed and, though the Union was still conducting negotiations with the management, the men took the law into their own hands and, without formulating any grievances, suddenly went out on strike in a body on the 8th of April.

For some time the Company made no effort to carry on work but waited for the men to return. A statement of the grievances of the men was issued on the 14th April, but most of the points raised had already been settled to the satisfaction of the president of the Union and were being given effect to by the management. Mr. Homi, after an appeal to the men to resume work, which had no effect, recognized that his position was hopeless and resigned his post as president. On the 22nd of April, the Company opened their works to fresh recruitment and proceeded to take on any labour that was available. Their standard labour force was 3,000 men. By the middle of May there were more than 1,800 men working, of whom about 1,000 were new, and from that time onwards, though the number of old hands fluctuated according to the efforts of the picketters and the strike leaders, the number of new hands, recruited largely from ex-employees of Messrs. Tata's and other companies, who had stayed on in Jamshedpur in the hope of securing fresh employment, showed a steady increase.

As soon as it was evident that the Company might in time be able to carry on work completely without the old labour, requests began to be made to Government by the men's leaders for action under the recently passed Trades Disputes Act. After an investigation of the necessity for such a course by the acting Commissioner of the division, Mr. J. R. Dain, I.C.S., who had in the previous year been Deputy Commissioner of the Singhbhum

district during the Jamshedpur strike, Government came to the conclusion that the recruitment of new hands had brought about a position that was irremediable by negotiation, and that a conciliation board would be useless. As regards a court of enquiry, it was clear that the employers, though prepared to face it, expected no advantage from it and therefore did not want it; while the responsible leaders on the part of the men were definitely opposed to its appointment. In the circumstances, Government considered that a court of enquiry could serve no useful purpose.

The Company continued to recruit new labour, until by the middle of July the number of workers had risen to over 3,000, a total which was larger than the standard pre-strike force. Many of the original labour force had gone back to their homes and showed no signs of returning, and some of the old hands, who had remained in Jamshedpur, were showing a definite tendency to drift back to work, as the Company still showed themselves willing to take them back without victimization. By the 19th of August, there were more than 1,000 old hands at work, while the number of new hands had increased to over 2,300 and production was within measurable distance of normal.

At this juncture, the strike party, with the assistance of Mr. Subhas Chandra Bose, made a determined effort to revitalize the strike, and an intensive campaign to that end was started on the 21st, in which various labour leaders from outside the province came to take a hand. Picketting was intensified and organized demonstrations of strikers took place outside the gates of the works, one of which led on the 22nd August to a riot between the Company's Pathan counter-picketters and strikers, in the course of which brickbats were freely used and several persons were injured. A *hartal* was declared as a protest against the Company's action in having, so it was said, provoked the riot and was partially successful, the numbers at work on the 24th August being only 2,200. During the next few days, there was a considerable increase of sabotage and violence, and the situation was not improved by the presence of outside labour leaders, several of whom made speeches of a more or less inflammatory nature.

Before long, however, the effects of the intensification of the campaign began to wear off and by the middle of September the numbers, both for old and new hands, had almost reverted to the figure at which they had stood previously, while production was nearly 80 per cent of the pre-strike normal. During October, there was practically no picketting, there were as many men at

work as there had been before the revival of the strike, and the outturn was greater than it had ever been before in the history of the Company. This position continued to the end of the year. Though the strike has been for some time virtually at an end, the Tinplate Company still has to face the problem of how to get rid of a small number of strikers who have not left for their homes and are still in occupation of their former quarters.

Finance.

The estimates for the year 1929-30 anticipated an opening balance on the 1st April 1929 of Rs. 160.72 lakhs, of which Rs. 103.62 lakhs represented the ordinary balance, and Rs. 57.10 lakhs the balance in the Famine Relief Fund. The total anticipated revenue was Rs. 586.21 lakhs, a figure which was more than Rs. 11½ lakhs higher than that anticipated for the previous year, owing, principally, to increased assessment in Orissa and to the transfer from the Famine Relief Fund of Rs. 8 lakhs for revenue expenditure of a non-recurring nature. "First edition expenditure" chargeable to revenue, to which Government were already committed, was expected to amount to Rs. 572.03 lakhs. The difference between anticipated revenue and first edition expenditure was thus Rs. 14.18 lakhs, or, excluding the Rs. 8 lakhs transferred from the Famine Relief Fund, over Rs. 6 lakhs. This compared favourably with the position two years before, when the excess of first edition expenditure was no less than Rs. 18 lakhs. After putting aside from the opening balance of Rs. 103.62 lakhs the sum of Rs. 75 lakhs as a minimum closing balance and adding the difference of Rs. 14.18 lakhs between anticipated revenue and first edition expenditure, as well as Rs. 3½ lakhs representing the net receipts from the capital account, the sum available for new expenditure during the year was found to be just over Rs. 46 lakhs.

Though a further decline of Excise revenue was anticipated, Government came to the conclusion that, as they had been relieved of further instalments of loan repayment and of their assignments to the Famine Relief Fund, they could safely increase their recurring commitments, though to a limited amount. Out of the sum available, therefore, they proposed to incur new recurring expenditure to the amount of Rs. 2.31 lakhs in the next year, a sum which would eventually expand to Rs. 3 lakhs a year. The amount available for non-recurring expenditure was likely still further to increase in the future, owing to a change in the functions of the Famine Relief Fund, consequent on the revision by the Secretary of State of Schedule IV of the Devolution Rules, under which that Fund was constituted. The purpose of the Fund had been

restricted and the minimum balance to be maintained reduced to Rs. 15 lakhs. As the opening balance in the Fund was Rs. 57.10 lakhs, there was thus an ample margin in hand. Approval had been obtained from the Government of India to the withdrawal from the fund of Rs. 18.86 lakhs, of which Rs. 8 lakhs would be used for non-recurring expenditure charged to revenue, and the remaining Rs. 10.86 lakhs for loans to district boards, which would be repaid to the Fund in due course and would then become available for non-recurring expenditure.

The position, therefore, was distinctly more favourable than at the beginning of the previous financial year. Subsequent calculations have shown that the situation at the end of 1929 was even better than had originally been anticipated, as the actual opening balance on the 1st April 1929 is now calculated to have been Rs. 171.89 lakhs, that is, Rs. 11 lakhs in excess of the original estimate of Rs. 160.72 lakhs. The closing balance at the end of March 1930 is now reckoned at Rs. 141.94 lakhs, including Rs. 40.65 lakhs in the Famine Relief Fund. The province, therefore, is still solvent, but the fact remains that substantial progress in the future cannot be looked for until the existing financial settlement is revised.

Legislative Council.

Two sessions of the Legislative Council were held during the year, the first at Patna in February and March 1929, the second at Ranchi in September 1929. In the course of the two sessions the Council held 32 meetings, of which 13 were wholly and one partly devoted to non-official business. The Hon'ble Khan Bahadur Khwaja Muhammad Nur and Rai Bahadur Lakshmidhar Mahanti continued to hold office as President and Deputy President respectively. There were five by-elections during the year, none of which were contested. The strength of the respective parties remained the same.

Bills passed.

Two Bills, one a Government and one a non-official measure, were passed into law during the year. The first of these was the Chota Nagpur Tenancy (Amendment) Bill 1927, a Bill to facilitate transfer by occupancy raiyats and acquisition by landlords of land required for mining purposes in Chota Nagpur. This measure was originally introduced in 1927 and after having been referred to a select committee came before the Council during the Patna session. It was then passed, in spite of opposition from the *Swaraj* party. As, however, some of the clauses of the Bill as

passed were found to occasion practical difficulties in working, the Bill was returned to the Council by His Excellency the Governor for reconsideration under section 81-A of the Government of India Act, with amendments recommended by him, and was reconsidered and amended. The other Bill passed was the Orissa Tenancy (Amendment) Bill 1928, a measure which provided facilities for consolidating holdings in Orissa by means of transfer by exchange. This Bill had been introduced and referred to a select committee during the previous year, when it was pointed out on behalf of Government that several clauses of the Bill as framed were open to objection. In the Patna session it was recommitted for future examination by the Select Committee, from which it emerged in a more workable form, and was passed into law during the Ranchi session.

Bills introduced.

Eleven Bills were introduced during the year, two by Government and nine by non-official members. Of the two Government measures introduced, the most important was the Bihar Tenancy (Amendment) Bill 1929. Two Bills to amend the Bengal Tenancy Act had previously been introduced, one in 1927 on behalf of the tenant's party and one in 1928 on behalf of the landlords. At the Ranchi session of 1928, the Council decided to refer both Bills to the same select committee, so that the two sides of the case for a revision of the tenancy law might be presented simultaneously. The report of this committee was formally presented to the Council at the Ranchi session of 1929, after having been published in the *Bihar and Orissa Gazette*, and showed that, though many minor points of difference had been settled, no compromise had been come to on the more vital points. The select committee, therefore, recommended that both Bills should be withdrawn, on the understanding that Government would introduce a Bill embodying the points on which an agreement had been reached and proposing what appeared to them a satisfactory solution of the main points of difference. Accepting this recommendation, Government introduced at the Ranchi session the Bihar Tenancy (Amendment) Bill 1929, which sought to balance the claims of the two parties by the grant of certain concessions to both. After discussion, the Bill was referred to a select committee.

The other Government measure was the Bihar and Orissa Mica Bill 1929, to prevent the theft of mica and to regulate the possession, transport of, and trade in, that mineral. A similar Bill had been brought up in the Council two years before, but a proposal to refer it to a select committee was then negatived without

discussion. After re-examination of the question, Government were still of opinion that there was sufficient evidence to show that the mica industry needed special regulation and special protection against theft and therefore decided to bring forward another Bill, containing certain changes to meet the objections and criticisms to the original Bill. After a protracted debate, the motion to refer it to a select committee was carried by 51 votes to 43.

Of the nine Bills introduced by non-official members, two aimed at securing more adequate representation of Muslims on district boards and municipalities, and one at providing for the better management of certain Hindu charitable and religious endowments in Bihar and Orissa. Two others related to tenancy legislation in Orissa and Chota Nagpur, one to the protection of cattle, and one to the amendment of the Bihar and Orissa Local Self-Government Act, with the object of protecting local bodies from the possibility of abuse of the powers of supersession vested in the local Government. The motion to refer the first two of these Bills to a select committee was not moved, as the mover wished to postpone it to a subsequent session of the Council; the other Bills were circulated for opinion. The two remaining Bills were introduced for the first time at the Ranchi session. One was the Bihar and Orissa Public Motor Vehicles Bill 1929, to enable the local Government and the district boards in the province to grant to any person the exclusive privilege of plying motor vehicles for hire on certain roads, the other the Bihar and Orissa Zamindar's Protection Bill 1929, which sought to protect *zamindars* from the evils of indebtedness and to make provision for the safety of their *zamindaris*.

Resolutions.

Twenty-one resolutions were moved in the Council during the year, of which seven were withdrawn, eight negatived, and six adopted. Of the resolution adopted, one, recommending the non-renewal of the lease of the Bengal and North-Western Railway on the grounds of inefficient service, was passed without a division. Two others of a non-party nature, recommending respectively the extension of the franchise to women and the removal of sex disqualification for election and nomination to the Legislative Council, were passed by large majorities.

Of the resolutions defeated, one proposed that Government should spend one lakh of rupees in the ensuing year in the manufacture and sale of *khadi*, and was defeated by the narrow margin of 4 votes. On two resolutions, the voting was equal,

whereupon the President in accordance with Parliamentary practice gave his casting vote in favour of the *status quo* and the resolutions were defeated. One of these was connected with the question of the adoption of *Urdu* as an optional court script in Bihar. A resolution to that effect had been passed during the previous year and opinions on the subject were invited by Government from the High Court and Bar Associations. The resolution moved on this occasion was that these opinions should be placed at the disposal of the Council and that, until the Council reaffirmed its previous decision, no steps should be taken in the matter. This was opposed by the Government spokesman on constitutional grounds.

The other resolution on which voting was equal recommended that Government should stop issuing and renewing licenses to liquor shops situated within a distance of 400 yards from any public thoroughfare, school or place of worship. In reply, it was pointed out on behalf of Government that the resolution amounted in effect to one for the enforcement of total prohibition, since it would be hard to imagine any liquor shops which were not so situated. Another resolution which was defeated by the narrow margin of seven votes recommended the withdrawal of the orders passed by the local Government, withholding from the "Searchlight" newspaper their advertisements and the free supply of Government publications.

Motion for adjournment.

A motion for the adjournment of the House was moved during the Ranchi session by the leader of the *Swaraj* party, for the purpose of discussing the strike at the Tinplate works at Golmuri. The mover, after describing some of the alleged grievances of the strikers, urged Government to intervene in the strike and to appoint a conciliation board under the Trades Disputes Act. The Government spokesman, the Hon'ble Mr. J. T. Whitty, replied that the question of intervention had been fully considered by Government, who had come to the conclusion, after an enquiry on the spot by the Commissioner of the division, that such a course could be of no benefit to either side, since neither a conciliation board nor a court of enquiry could effect any change in the situation which had arisen from the appointment by the Tinplate Company of new men in the place of the strikers, which was the crux of the problem. It was evident, however, from the discussion which followed, that the Government point of view was not accepted, and when the motion for adjournment was put to the vote it was carried by 41 votes to 39.

Budget discussions.

One day was devoted to the presentation of the Budget for 1929-30. It was introduced by the Hon'ble Raja of Kanika who had only recently assumed the duties of Finance Member. One day was occupied in general discussion of the Budget and nine days in the voting of demands for grants. Fifty-three motions for the reduction or omission of Budget demands were discussed, of which 8 were carried, 14 rejected and 31 withdrawn. The motions carried were all for token cuts, and were moved to draw attention to a variety of alleged grievances, some of an agrarian nature, such as the contemplated revision of the survey and settlement operations in two Bihar districts, some of a more domestic character, such as the inadequacy of the pay of Secretariat and Legislative Council clerks and flaws in the travelling allowance rules for members of Council. The police budget was let off lightly and only came in for two nominal cuts, each of Rs. 100, one in disapproval of the discharge of a constable for repeatedly wearing a *tika* mark on his forehead while in uniform, the other in the provision for Railway Police, as a protest against the alleged incompetence of the Bengal and North-Western Railway Company. Thirty-nine supplementary budget demands were put before the Council, all of which were carried.

Prorogation of Council.

At the conclusion of the Ranchi session, the Council was prorogued by His Excellency the Governor in person. In the course of his address, His Excellency announced his intention of using the power vested in him by section 72-B of the Government of India Act to prolong the life of the Council beyond the normal three years. He stated that he had in this respect decided to follow the example of His Excellency the Viceroy in extending the life of the Legislative Assembly, and of the Governors of other provinces in taking a similar course with their provincial Councils. The reasons for this step, which had already been given by His Excellency the Viceroy, applied with equal force to the provincial Councils. His Excellency was of opinion that the next election for the Council should take place with relation to the constitutional changes which had been under discussion for the past two years and he was convinced that it was right that the electors and candidates should have before them the report of the Royal Commission, rather than that the election should be influenced by hazardous guesses, possibly coloured by political bias, as to the contents of that report. His Excellency stated in conclusion that he did not propose to issue any notification fixing the period

of extension until he was aware what action was contemplated by the Government of India and other provinces, as it was obviously desirable that their own elections should be held at the same time as the others.

District boards.

The administration of district boards during the year presented few features of particular interest. The period of financial stringency which the present group of boards had to face from the outset, due partly to the expansion by their predecessors of recurring commitments on education and medical relief, partly to the inability of Government to repeat the liberal grants given for those objects in past years, continued during the year under report; and the history of the year is one of efforts made by the different boards, with varying degrees of thoroughness, to consolidate their position and to solve the knotty problem of ways and means. The order superseding the Gaya district board and its local boards which took effect from November 1928, was renewed every three months throughout the year. The special inspecting officer appointed by the Ministry of Local Self-Government in 1928 remained on special duty during the year in charge of the superseded board, while a successor was temporarily appointed later in the year to inspect, assist and co-ordinate the activities of local bodies in the province under the Ministry. This post is believed to have only one counterpart in India, namely in Madras.

As the result of an intensive campaign to eradicate water hyacinth in the three coastal districts of Orissa during the previous year, several thousands of acres which had been completely choked by the weed, were entirely cleared, and tanks were restored to use for the first time for many years as fisheries or as sources of water-supply. This result was largely due to the personal energy of the Commissioner of the division, Mr. N. F. Peck, I.C.S., aided by the district staff, the district board executive and the landlords and raiyats themselves. Success continued to attend the campaign during the year, and interesting investigations are being made as to the habits of the weed.

Municipalities.

The year under review, like its predecessors, has been marked by few developments in municipal administration. Municipalities continued to be hampered by lack of funds and were in consequence only able to make very little progress. Satisfactory progress was however made during the year in the schemes for the improvement of the Gaya and Muzaffarpur water-supplies and in the scheme for the

installation of a pipe water-supply at Puri, all of which have been undertaken by the engineering branch of the Public Health Department. A scheme for electric lighting for the towns of Muzaffarpur and Bhagalpur was completed during the year.

The only event of any importance was the municipal elections, which have been held throughout the province towards the close of the year. The competition for seats has been keen, particularly in the larger towns. There has been no evidence so far of any organized campaign to enable any political party to capture seats. Some instances of personation by voters have been reported.

Audit.

Audit reports on districts boards and municipalities drew attention to the same defects as in previous years, namely, in the case of district boards, irregularities in calling for tenders and in giving out contracts, and in the case of municipalities poor account-keeping, lack of supervision over the accounts and overlenience in the remission of taxes. The reports were, however, on the whole less critical than usual and there were indications that many objections were settled on the spot. With the object of improving the standard of account-keeping, Government instituted during the year a Local Bodies Accounts' Examination, intended to help municipalities and district boards to employ accounts clerks qualified by passing a simple test in the Municipal Act and other local Acts. A rule has been issued prescribing the passing of this examination as a necessary qualification for these posts.

Public Health.

Cholera was again prevalent in the province during the year. In January, a month in which there is usually very little cholera, as many as 815 deaths were reported, chiefly from the Orissa division. In February, the disease was still present in Orissa and spread to the Manbhum district. By the month of April, there was hardly a district in the province in which cholera was not present, and from May to September it raged in epidemic form in practically every district. The total number of deaths during this period was 88,531, an exceptionally high figure, which was three times as great as that for the corresponding period of the previous year. To help local bodies to cope with the epidemic, Government sanctioned the employment of 15 doctors in addition to the permanent epidemic cadre of ten. Cholera vaccine continued to be supplied free and the demand for it was very great. A total issue of 656,300 doses of vaccine was made to local bodies from the vaccine depôt at Namkum and a remarkably successful campaign for the voluntary inoculation of pilgrims was conducted

by Government on the occasion of the *Rath Jatra* festival at Puri. No less than 39,727 pilgrims were inoculated on detraining, most of them at Puri, and some at Balasore and Cuttack, on their way to the festival. Out of this number, there were only 30 cases of cholera and one death, whereas amongst the uninoculated pilgrims and inhabitants of the town of Puri, estimated at 26,273 in number, there were 301 cases of cholera and 81 deaths. It was thus possible to secure very reliable information on the subject of the immunity conferred by cholera inoculation. In considering these statistics, it must be remembered that the immunity conferred by the vaccine does not reach its maximum until ten or twelve days after the injection. Most of the cases and the one death which occurred were among those who had been only very recently inoculated. This is believed to be the first successful cholera inoculation campaign at a pilgrim centre in India on such a large scale.

Similar precautions have been taken to prevent the spread of cholera at the ensuing *Kumbh Mela* at Allahabad. The Ministry of Local Self-Government have sanctioned a grant of about Rs. 19,000 for the staff and equipment likely to be required by the Director of Public Health for stamping out cholera where it exists, for supplying free vaccine to local bodies for an inoculation campaign and for the medical inspection of passengers passing through this province, while visiting and returning from the *mela*. A circular has also been issued to local bodies requesting them to utilize their public health organizations for voluntary inoculation of intending visitors to the *mela*.

Water-supply and drainage schemes.

Two schemes have been undertaken by Government during the year in the interests of local bodies which are of outstanding interest to the general public. The first of these is a scheme for a permanent supply of pipe water to the annual Sonepur *mela*. The water-supply at this *mela* formerly depended on ordinary wells. In recent years, Government have improved these arrangements by lending portable pumping sets for drawing water from the wells. It was decided, however, that the most satisfactory arrangement would be the installation of a permanent piped water-supply and a scheme was drawn up and undertaken by the Superintending Engineer of the Public Health Department. Two 5″ diameter tube-wells were sunk and the installation was completed in time for the *mela* held in November 1929. The completion of this scheme has not only added greatly to the convenience

of the numerous visitors who come from all over India to see the *mela* but has also greatly lessened the chances of an outbreak of cholera.

The other scheme undertaken during the year is one for a water-supply for the town of Puri. Tests conducted during the previous year in the sandy area near the sea established the presence of a sufficient supply of fresh water beneath the sand to provide the town with a pipe water-supply system. Further experiments were carried out during the year to ascertain the zone of diffusion between the fresh and salt water areas with satisfactory results. An outline scheme has now been prepared for the consideration of a joint committee of the Puri municipality and the Puri Lodging House Committee. It is hoped that it will be possible to test the complete group of wells next spring and to complete a pipe water-supply within two years, to be financed by the existing terminal tax, supplemented by water-rate. The problem of finding a satisfactory source of supply has baffled Government for many years and it is hoped that it has now been satisfactorily solved. If the scheme succeeds, the spread of cholera throughout the province and India from Puri should be greatly diminished.

Leprosy campaign.

Early in the year, a leprosy survey party was appointed under the supervision of Government's leprosy expert, who is an M.B. of Calcutta, to conduct a leprosy survey in all the most infected districts for a period of six years, to establish outdoor clinics for the treatment of the disease and to carry out propaganda work. The party first underwent a course of practical training in field-work under the officer in charge of the leprosy survey conducted on behalf of the Indian Council of the British Empire Leprosy Relief Association, and then started its campaign. Propaganda work by means of magic lantern lectures and the exhibition of cinematograph films was carried out by the leprosy expert in the larger towns of the districts visited, while the survey party carried on similar propaganda in the rural areas. During the year, four police-station areas in the Puri district, namely Khurda, Tangi, Bhubaneswar and Puri town, were thoroughly surveyed by means of a house-to-house examination for lepers in the various stages of the disease. As a result of this survey a large number of cases in the early stages were detected and were subjected to regular treatment. Treatment centres were opened at these four places and the survey party worked at each of them for a month, and

trained the doctors and sub-assistants in charge. The management of the clinics is now being taken over by the Puri district board. It is satisfactory to note that the outdoor treatment of early cases at these clinics is daily becoming more popular.

In addition to the four doctors trained by the survey party, seven were trained by the Leprosy Expert in June at Puri, where he gave an intensive course of lectures and practical demonstrations. Eleven more doctors were trained at the Calcutta School of Tropical Medicine during the year. The number of clinics in the province, formerly twelve, was increased by the addition of six, four as the result of the survey scheme, and two others in the Bhagalpur and Puri districts respectively. The leprosy expert inspected fifteen of these clinics as well as seven out of the eight leper asylums in the province and suggested lines of improvement wherever necessary. In addition, he prepared two popular pamphlets on leprosy which have been translated into the vernacular by the publicity officer of the Public Health Department for publication in local newspapers. Other pamphlets are in course of preparation. This organized campaign against leprosy is believed to be the first of its kind in India, with the exception of that started recently in the Central Provinces.

Special treatment of diseases.

The Radium Institute which was moved from Ranchi in 1928 and is now located in the Medical College Hospital at Patna continued to attract patients from all parts of India and Burma. The number of patients treated during the first nine months of the year was higher by 50 per cent than the number treated in the corresponding period of the previous year, a result which is largely due to the greater accessibility of Patna as compared with Ranchi. A sum of Rs. 90,000, out of the contribution of a lakh of rupees made by the late Maharajadhiraja Bahadur of Darbhanga to celebrate the visit to Patna of His Excellency the Viceroy, has been allotted by His Excellency the Governor for the purchase of an additional stock of radium for the Institute. This generous gift is likely to assure the future of radium treatment in the province. The Tuberculosis Sanatorium at Itki on the Ranchi plateau was partially opened in April. Fresh admissions had to be refused later in the year owing to the illness of the Superintendent, but the Sanatorium will be reopened in March, complete with a pipe water-supply, a sewerage system and an electric installation. A Pasteur Institute for the treatment of patients bitten by rabid animals was opened in Patna in August, in the buildings of the Pathological department of the Medical

College Hospital. The Institute is at present staffed by two assistant surgeons who have undergone a full course of training at Kasauli in anti-rabic treatment. Treatment is given daily at the outdoor department of the Medical College Hospital, patients who are too ill to attend the Institute being accommodated in the wards of the hospital. Up to the end of December, 1,107 patients were treated at the Institute, the daily average attendance being 93. As usual, special grants were given by Government for the treatment of kala-azar and venereal disease. Rs. 7,500 for the former and Rs. 12,000 for the latter.

Welfare work.

The Bihar and Orissa Maternity and Child Welfare Society, which was registered in 1928 and is presided over by Lady Stephenson made good progress during the year. There are four maternity and child welfare centres in the province, namely two in Patna, one at Cuttack and one at Monghyr, all under trained supervision, and those in Patna and Cuttack under the supervision of maternity supervisors, provided at Government expense. The opening of five new centres is under consideration. A propaganda sub-committee has been formed by the Society, which has circulated to local bodies practical suggestions on the way to start maternity and child welfare work within their respective areas. The Lady Chelmsford All-India League for Maternity and Child Welfare work has offered a scholarship of Rs. 40 a month to each candidate coming forward for training, and has consented to train them, free of charge, in the Lady Reading Health School at Delhi.

Hospitals and dispensaries.

Twelve new dispensaries were opened during the year, two by the Ramgarh Wards estate in the district of Hazaribagh, two by the district board of Champaran, and one each by the district boards of Patna, Darbhanga, Puri, Ranchi, Manbhum and Palamau. One private dispensary was opened in the district of Bhagalpur and one in the district of the Santal Parganas. Except the last named, all other dispensaries have been placed under Government supervision. Six dispensaries were closed during the year, three by the Gaya district board, one each by the district boards of Manbhum and Singhbhum and one by the district council of the Santal Parganas.

The name of the Patna General Hospital has been changed to the Patna Medical College Hospital, to indicate that it is a teaching institution attached to the Prince of Wales Medical College. Government have sanctioned the creation of a post of Medical Registrar and of ten posts of house physicians and house

surgeons, to be filled temporarily by junior graduates of the Patna Medical College. Three blocks of wards for Indian-paying patients are in course of construction at this hospital. Improvements at other hospitals include a water-tower at the Darbhanga Medical School Hospital and an indoor block at the Dumka Sadr Hospital, both of which are still under construction.

Primary and secondary education.

The position as regards primary and secondary education during the year remained much the same as before. The outstanding problem is, as usual, one of finance. Unless the financial position of the province improves and more funds become available for educational purposes, there is little prospect of improving the standard of expenditure on secondary schools, while some further reduction in the number of stipendiary primary schools will probably have to be made, if the district boards are to balance their budgets. There is little of interest to record during the year, except the receipt from Government of a non-recurring grant of three lakhs for the construction of buildings for primary and middle schools and the introduction of a scheme for the inspection and audit of the accounts of aided schools and colleges in receipt of a Government grant of Rs. 75 a month or more. This scheme has already justified itself, as one of the auditors has detected a serious cause of misappropriation of funds at an aided college.

University education.

In deference to a considerable volume of opinion that the Patna University should be changed in character from a purely federal to a teaching University, a private Bill, entitled the Patna University (Amendment) Bill 1927, was brought forward in Council and after being discussed at considerable length during the autumn session of 1928 was ordered to be circulated for opinion. On receipt of opinions the Bill was again discussed at length in the Council in February 1929, when a motion to refer it to a select committee was defeated. The same question had, however, already been referred by the Senate of the University to a special committee. As the result of the recommendations of this committee, Government decided that the creation of a University service was at present impracticable and that no change should be made in the existing arrangement for staffing and managing the colleges. They agreed, however, to the constitution of a central University board to control inter-collegiate teaching and discipline, to a proposal to fix, when opportunity for legislation occurs, the proportion of teachers and non-teachers on the University syndicate and to the granting to

the University of increased powers in connection with the selection of candidates for appointments at Government colleges.

Educational Committees.

Government published during the year resolutions on the reports of two educational committees, one convened to consider the measures to be adopted for the development of the principal vernacular languages and literature of the province, the other to consider the subject of Sanskrit education in Bihar and Orissa. The principal recommendation of the committee on vernacular development was one for the establishment of an academy for the whole province, to be called ' the Bihar and Orissa Academy ', with the object of preserving and developing the language and literature of Hindi, Urdu and Oriya. Government approved of the proposal but estimated that the establishment of an academy would involve recurring expenditure amounting to at least half a lakh of rupees. They therefore regretted that unless the whole or part of the cost was borne by public-spirited men of the province, they were unable, in the present state of their finances, to give effect to the recommendation. The committee also recommended that the vernacular should be made the medium of instruction and examination up to the matriculation standard in subjects other than English, to which Government replied that an experiment on those lines was already being made, the results of which would be examined before further steps were taken.

The recommendations of the Sanskrit committee included the formation of a Sanskrit college at Patna, the institution of a *pradhanacharya* course with twenty scholarships, each of Rs. 50 a month for three years, an increase in the pay of the teachers in Sanskrit colleges, and a large increase in the number of *tols* and *pathshalas*. Government were unable to approve of these proposals, for which no adequate reasons were put forward. Their acceptance would, in any case, have involved a total initial expenditure of nearly nine lakhs of rupees and recurring expenditure of over three lakhs. Other proposals for the re-constitution of the Sanskrit Convocation and Council and for changes in the inspecting staff for Sanskrit schools were accepted, subject to certain modifications.

Another committee appointed at the beginning of the year to consider the quality of present-day matriculates, and also certain questions connected with the middle school certificate examination,

submitted its report during the year. This report is now under consideration.

Crime.

Crime, during the first three quarters of the year, presented, on the whole, few features of interest, though there were one or two cases of a startling nature. During this period, there were 250 cases of murder against a triennial average of 231 for the same period. A sensational case was the murder, in the month of July, of a first class passenger while on his way by train from Calcutta to Bombay. The murder was committed within the jurisdiction of the Bengal-Nagpur Railway Police. An Anglo-Indian was arrested in connection with the crime and was tried and found guilty, just after the close of the year, by the Sessions Judge of Manbhum, who sentenced him to death. Another sensational case, involving the murder of a European, occurred in the Shahabad district, when Captain Duff, the assistant manager of the Dumraon estate, was killed in the course of a serious agrarian riot. Twenty-six accused were sent for trial in connection with this case, of whom four were sentenced to transportation for life and nine to seven years' rigorous imprisonment each, the remainder being acquitted or discharged.

There were 186 cases of dacoity, against a triennial average of 181. There was a marked increase in the second quarter of the year, when 86 cases occurred, compared with a triennial average of 60 for that quarter, due largely to an outbreak of road dacoity in the Gaya and Shahabad districts. There was a noticeable decrease of dacoity in Purnea and Bhagalpur, two districts where this form of crime has been particularly rife in recent years, due to action taken against local gangs. Two dacoities, both accompanied by murder, were of an unusual nature. One case occurred in the Gaya district. Owing to a long-standing feud between two Muhammadan families, one party conspired to kill the leader of the other. A party of Calcutta *goondas* was brought by car to the neighbourhood and in combination with villagers committed the dacoity, in the course of which two persons were murdered. The other dacoity was of a political nature and occurred in the Champaran district. The house of a villager was raided in June by dacoits who stole cash and ornaments to the value of about Rs. 1,200 and decamped after inflicting a fatal spear wound on another villager, who had come to the assistance of his neighbour. During the investigation, it was discovered that two political suspects had been absent from their houses on the

night of the dacoity and that one of them had a severe injury for which he could not satisfactorily account. Simultaneously, information was received that both these men were wanted in connection with the Lahore conspiracy case. They were arrested and the uninjured man was sent to Lahore, where he confessed to having arranged the dacoity in order to raise funds for the revolutionary party. He stated that the dacoits, whom he named, consisted of two revolutionary suspects, aided by his own servant and seven local men, but did not admit having taken part in the dacoity himself. The accused was taken back to Bettiah, whereupon his servant made a confession, in the course of which he pointed out the places where the stolen ornaments had been hidden. They were nearly all recovered, some of them wrapped in a national flag. A revolver and two pistols belonging to the revolutionary party were also recovered. Three of the local men who were alleged to have assisted to commit the dacoity were arrested, the remainder having absconded. The two confessing accused were made approvers and the other three were sentenced to ten years' rigorous imprisonment each. The suspect who received injuries during the dacoity, said to be the result of a sword blow intended by one of the dacoits for one of the inmates of the house, was not put on trial, as he was already under trial in the Lahore conspiracy case.

Other forms of crime except rioting showed few marked fluctuations. There were 116 robberies against a triennial average of 104; 10,357 burglaries against an average of 10,312; and 506 riots against an average of 575. The decrease in the number of riots, for which it is difficult to give definite reasons, was practically confined to the third quarter of the year, when there were 150 compared with an average of 205 for that quarter.

Administration of justice.

The volume of criminal and civil litigation is still very large. Two temporary additional Judges of the High Court were appointed for the period from December 1928 to the opening of the Civil Court vacation of 1929. The congestion of work, however, remained serious and two additional Judges have now been appointed from November 1929 up to the Civil Court vacation of 1931. In order to cope with the congestion in the lower courts, a proposal for strengthening the cadre of District and Sessions Judges is under examination, and an addition is proposed to the cadre of Munsifs by the creation of six new posts.

Temporary posts of Additional District and Sessions Judges were also sanctioned for six districts for varying periods during the year.

Jail education.

The success attending the introduction of compulsory education of Hindi-speaking "A" class male prisoners of 25 years and under with sentences of more than one year, which was started three years ago in the Gaya Central Jail, has induced Government to make this feature permanent there and to introduce a similar experiment with education in Urdu for a period of two years in the Bhagalpur Central Jail.

Excise.

The total Excise revenue for the year amounted to Rs. 190.81 lakhs, against Rs. 190.20 lakhs in the previous year. The consumption of country spirit increased from 909,695 L.P. gallons in the previous year to 939,680 L.P. gallons in that under report. On the other hand there was a slight decrease in the consumption of *ganja*, *bhang* and opium. The sliding-scale system for the settlement of excise licenses, which is in force over the major portion of the province was extended from the 1st of April to all drug shops in the district of Angul. The tree-tax system for *tari* was also extended. It had been introduced two years before as an experimental measure in the Dinapore subdivision of the Patna district, and the success of the experiment led to its extension from the 1st of April to the whole of the Patna district, with the exception of a very small area. The temperance movement which had been organized by the local Congress Committee in the Champaran district during the previous year was in abeyance during the year. The prohibition of the sale and possession of country spirit which was in force in the Rosera thana of the Darbhanga district as an experimental measure during the previous year continued during 1929.

Various other reforms were introduced as temperance measures during the year. The treasury price of opium was increased from Rs. 81 to Rs. 90 per seer and, in order to check the consumption of opium in three of the Orissa districts, the amount purchasable for Rs. 1-8-0 was reduced by 12 grains. The price of country spirit was also indirectly increased in four districts in North Bihar and in Manbhum, by reducing the capacity of the bottle measure from 23 to 20 ounces, the price per bottle remaining the same. Other temperance reforms included the introduction or extension of the contract distillery system in three districts

of Chota Nagpur and one of Bihar; the prescription of an issue strength for country liquor of 80. instead of 70, under proof in the district of Manbhum; and the shutting, as an experimental measure, of all country spirit shops within the municipal areas of Patna City and Ranchi during the *Muharram* and *Dasahara* festivals.

Survey and Settlement operations.

During the year ending 30th September 1929, revision settlement operations were continued in the districts of Balasore, Cuttack, Puri, Ranchi and the Santal Parganas, and original operations in the Kosi diara tract of the Purnea and Bhagalpur districts. The traverse survey of the Porahat estate in Singhbhum was also taken up, as a preliminary to revision survey and settlement. During the year, a total area of 1,662 square miles was cadastrally surveyed, the records of 2,456 square miles were attested and the rents of 366,580 tenants were settled. A conference of settlement officers was held at Ranchi in September to discuss possible means of reducing the cost of settlements. Several important changes and improvements of procedure in matters of detail were agreed upon, which are likely to result in substantial economy, without loss of accuracy.

The Air Survey Company photographed a small area in the Santal Parganas during the year at its own expense. Maps of the last settlement of that area were sent for comparison to the company, in order to bring the photographs to the correct scale. As the result was not satisfactory, owing possibly to the distortion of the maps by shrinkage, fresh prints were taken from the original maps and supplied to the company. On receipt of the company's report, it should be possible to decide whether a revision survey can be done by air-photography without the need of a traverse to bring the photographs to the proper scale.

Forests.

The Forest Department continued during the year to develop its forest conservancy policy on scientific lines. Perhaps the greatest difficulty with which the department has to contend is the lack of public support from the more intelligent section of the public and also from the agricultural classes. There are encouraging signs, however, that the publicity which has recently been given to the aims and objects of the Forest Department is slowly bearing fruit. The owners of private forests are beginning to realize the advantages which the Department has to offer, and several of them have

requested Government to have their forests inspected. As the result of these requests, no less than seven private estates have been visited and working plans for the regulation of feelings and the replenishment of stock by sowings and plantings have been prepared for two private forests. Further, the proprietors of four estates have applied for the reservation of their forests under section 38 of the Indian Forest Act during the year. There is thus reason to hope that in time more educated public opinion will grasp how intimately agricultural prosperity is connected with forest conservancy.

The increased trade in timber consequent on the opening up of forest communications has resulted in a considerable expansion in the forest revenue, in spite of a large reduction of output. The Department hopes to expand the revenue still further by finding sales for those products which are at present little in demand. Experiments are being made in the seasoning of various kinds of timber and it is possible that many of them, which are at present classed as useless, owing to defects in seasoning or for other reasons, may serve some useful purpose. Bamboos for paper-making are already being exploited in Angul and further supplies are available in Sambalpur and Palamau. A promising line of research is in the formation of *sabai* grass plantations. The results hitherto attained are sufficiently marked to encourage the hope that *sabai* may become a valuable crop on shallow soils and that *sabai* plantations may be an effective means of arresting the serious erosion of the soil which is taking place in forest areas. Considerable research is also being made in the production of lac, in order to combat the synthetic substitutes for this product which are coming on the market in increasing numbers. A start has also been made in co-operative lac production under the supervision of the Forest Department.

Floods.

The province was free from serious floods, such as occurred in Tirhut in 1928 and in Orissa in 1927. About one-third of the Patna district was flooded during the latter half of August and severe damage was done to the *bhadai* crop in a large part of this area, but the flood was purely local. In Orissa, the floods were moderate and damage was neither serious nor widespread. The recommendations of the Orissa Flood Committee, which issued its report last year, have been under the consideration of Government. A recommendation for the reorganization of irrigation and embankment charges has already been accepted and the Orissa circle has

been rearranged so that all irrigation works are in charge of a single irrigation division, while all the agricultural embankments, rivers and drainage channels in the three districts of Cuttack, Puri and Balasore are in charge of two embankment divisions. Other flood mitigation schemes recommended by the Committee are in process of examination.

Weather and crops.

Weather conditions during the year were, on the whole, favourable to the cultivator. The ante-monsoon showers from March to May were light and generally below the normal everywhere. In June, the rainfall was also below the normal everywhere, except in the Tirhut division, and was not sufficient for transplantation, but in July and August it was copious in nearly every district. In September again rainfall was short, except in Sambalpur, but in October it was above the normal everywhere, and was very helpful to the winter rice crop generally, though in several districts damage was done to the crop by floods and excessive rainfall. The harvesting of rice began on normal dates. The outturn of the winter rice crop is estimated at 104 per cent and of the autumn rice crop at 103 per cent of the past ten years' average. Though the outturn of maize is only 84 per cent of the normal, that of *bhadai* crops and of sugarcane is estimated to be in each case 101 per cent of the decennial average. *Rabi* sowings took place in favourable conditions and the prospects for *rabi* crops are good. At the end of November, the price of common rice was cheaper by one seer per rupee and that of maize by 3½ seers per rupee than at the same time last year.

Agricultural Development.

The Royal Commission on Agriculture in the course of its report, which was published in July 1928, made several important recommendations affecting this province. Proposals to give effect to those recommendations have now been worked out and submitted to the local Government. The more important of these proposals include the opening of an agricultural college, the formation of a provincial agricultural research committee, the inauguration of schemes for rice and sugar research, the appointment of a live-stock officer, the strengthening of the Subordinate Agricultural Service and an increase in the number of *Kamdars* for demonstration and propaganda work. Action has already been taken on some of the proposals submitted. A provincial agricultural research committee was formed during the year by the local Government, consisting of officials and non-officials, with the Hon'ble Minister as

president, in order to co-ordinate the activities of the provincial departments with the Imperial Council of Agricultural Research. The preliminary details in connection with the opening of an agricultural college will be worked out by a senior officer of the Agricultural Department who has been placed on special duty for that purpose. Rice and sugar research schemes have been drawn up and considered by the provincial Agricultural Research Committee, and submitted to the Imperial Council of Agricultural Research for the grant of funds wherewith to finance them. The appointment of a live-stock officer for the province will be given effect to as soon as funds permit; meanwhile a live-stock inspector has been appointed, to supervise the distribution of the improved type of buffalo bull in North Bihar. The proposals for strengthening the cadre of the Subordinate Agricultural Service and for increasing the number of *Kamdars* cannot yet be put into effect owing to lack of funds.

The Department continued, during the year, to make progress in one of its most important activities, namely that of bringing agricultural improvements to the notice of cultivators. A permanent advance of one lakh of rupees has been placed at the disposal of the Department for financing the distribution of improved seeds, implements and manures. Stocks of improved seeds and implements are being laid in and distributed. The scheme started during the previous year for peripatetic demonstrations of improved implements and of better methods of cultivation proved so valuable that it is being continued for another two years. Over 3,600 demonstrations were carried out on cultviators' own fields during the year 1928-29, and in addition, the Engineering staff successfully completed 19 large tube-wells and 268 small borings. As the result of these demonstrations, there has been a greatly increased demand for artificial manure, and improved engineering implements, such as the *Rahat* pump and Bihar ploughs, are rapidly increasing in popularity.

Veterinary work.

The buildings of the new Veterinary College at Patna were, with a few minor exceptions, completed by the beginning of the year. The College was to have been opened in July 1929, but it was unfortunately not found possible, on the terms offered, to recruit suitable officers for the two most important posts of Principal and Professor of Pathology and Bacteriology. The posts have now been re-advertised on improved terms, and it is hoped that they will be filled in time for the College to be opened in July 1930.

Suitable candidates have been found to fill the posts on the staff of Indian Professors and lecturers sanctioned for the College. Considerable progress was made in completing the equipment of the College, particularly that of the laboratories and the electric installation. The water-supply and sanitation schemes only remain to be completed.

The work of the Veterinary Department continued to progress steadily throughout the year. Out of 6,435 outbreaks of contagious disease reported during the year, 5,205 or 80 per cent were attended by the Veterinary staff. The number of animals affected was 88,485, of whom 28,363 died. The popularity of inoculation continued to increase and it is evident that the economic value of this measure is now being fully realized. During the first nine months of the year, the number of inoculations performed was 248,770 against 220,705 during the corresponding period last year, and 245,532 during the twelve months ending 31st March 1928. The number of animals treated at veterinary hospitals and dispensaries and by assistants on tour also showed a slight increase. The work at the Government Cattle Farm at Patna developed considerably during the year.

The recommendations made by the Royal Commission on Agriculture have received the close attention of Government who have already adopted as many of them as the financial situation and the immediate needs of the Department rendered possible.

Co-operative Societies.

Co-operative societies, both agricultural and non-agricultural, continued to progress satisfactorily during the year. One of particular interest is the Maghaiya Dom Co-operative Society, which has been recently formed at Masrak in the Saran district among the Maghaiya Doms, a low caste criminal tribe settled there under police surveillance. The society was started as an experimental reforming agency and already shows signs of being a success. The members are keenly interested in its welfare and are educating their children, one of whom has been admitted to the Chapra zila school. If the experiment continues to be a success efforts will be made to organize similar societies in other Dom settlements in the province.

Central banks continued to carry on successful propaganda work by demonstrating agricultural improvements and encouraging the cultivation of certain tested crops and the rearing of *eri*-silk. In Cuttack an " International Co-operator's Day " was observed

in July 1929, in which all the local banks and the public took part. The occasion was utilized for the demonstration of improved methods of agriculture by means of charts and by the exhibition of implements and products.

A Co-operative Training Institute for the training of employees of co-operative societies was opened in August 1929 at Sabour in the Bhagalpur district. The Institute is manned by a staff consisting of a principal and four professors and is maintained largely by contributions from central banks and primary societies, which contribute at the rate of nine pies per cent of their working capital. A training class on the same lines has been started at Cuttack, and classes have been held at various centres by the central banks themselves, which are realizing to an increasing extent the importance of training the members and *panches* of primary societies in the principles of co-operation.

Two co-operative schemes of a novel type have been started at Dhanbad and Jamshedpur. At Dhanbad, a central co-operative bank has been established, which has no preference shareholders, but of which individuals are allowed to become members, provided they have genuine faith in the co-operative movement and are willing to promote it by standing as guarantors of the bank. Though of recent origin, the bank has already succeeded in securing 22 guarantors. The main object of the bank is to carry on village welfare work and to start and finance village societies. At Jamshedpur, a new scheme for the organization of co-operative stores for the working classes has materialized as the result of a conference presided over by Sir Lallubhai Samaldas, a director of the Tata Iron and Steel Company. The scheme provides for the establishment of five stores, with a subsidy of Rs. 3,000 a year for three years, together with a loan from the Steel Company of Rs. 25,000 at a low rate of interest, on condition that an equivalent amount is subscribed as share capital by the members. The organization of the stores is in progress.

Technical and Industrial education.

Technical and industrial education continued during the year to progress on sound lines. At the Bihar College of Engineering there were 87 applicants for admission to the civil engineering classes. Ten candidates appeared in the final examination for the degree of B.C.E., of whom all but one passed. Applications for admission to the subordinate classes improved considerably but the mechanical apprentice class showed a marked decline in popularity. Government have now under

consideration a scheme for the abolition of the apprentice class and the improvement of the existing artisan course in the Bihar College of Engineering, as well as in the three technical schools at Cuttack, Ranchi and Muzaffarpur. A reorganization scheme has been recently prepared by the Governing Body of the College and is, at present, under the consideration of Government. The scheme includes the provision of degree classes in mechanical and electrical engineering and the transfer of the subordinate classes to the technical school at Muzaffarpur.

At the Orissa School of Engineering, which had 117 students on the roll at the end of March, there was a considerable improvement in the results of the subordinate examination, and those of the sub-overseer examination were also satisfactory. Various structural improvements have recently been completed, and a new workshop is nearing completion. At the Technical Institute at Muzaffarpur, six mechanical students passed the final examination and at the Ranchi Technical School, seven completed the course. The successful students were deputed for practical training to the Saran Engineering Company, the railway workshops at Samastipur and the Tata Iron and Steel Company. The artisans' classes at these two schools were considerably more popular than the apprentice course, 36 artisan students from each school completing their course. The thirteen aided schools, notably the Jamshedpur Technical Institute, the Jamalpur Technical School and the Jamshedpur Technical Night School continued to show good results.

During the year, 21 stipends were granted to students for training in technical subjects outside the province, and three State technical scholarships were, as usual, awarded for specialized training abroad. In addition, two scholarships of Rs. 60 a month were awarded for training in the School of Mines at Dhanbad and two of Rs. 45 and Rs. 30 in the Bengal Tanning Institute at Calcutta, which reserves seats for students from this province. A scheme for the creation of a short-term State technical scholarship for the training of enterprising industrialists of the province has been sanctioned by Government and will be put into effect next year if funds are available.

Industrial development.

The activities of the textile branch of the Department of Industries have resulted in an increasing demand for Bihar textiles, particularly *purdahs*, outside India. Silk and cotton textiles

manufactured at the Cottage Industries Institute at Patna and at the Silk Institute at Bhagalpur were sent in large quantities for exhibition at the British Industries Fair of 1929, with the result that, whereas sales in 1926-27 amounted only to £50 a month and in the succeeding year to £229 a month, as much as £700 worth of goods is now being sold every month by the London agent. An agency has also been established in New Zealand, and trial orders to the value of £600 have been received from that country. A third textile institute, which has recently been established by Government, namely the Wool Weaving Institute at Gaya, failed during the year to show very marked results. Government have, however, sanctioned its continuance for a further period of five years, during which time it is hoped that the Department will succeed in establishing it on a firmer footing.

Eri-culture which has recently made remarkable progress, particularly in Orissa has been further developed during the year by the establishment at Netarhat of a central supply station for *eri*-seed. The handloom industry is also likely to benefit considerably by the increase sanctioned during the year in the number of dyeing demonstrators sent out in charge of peripatetic weaving demonstration parties, to demonstrate the use of fast colours and of improved methods of weaving.

The engineering branch completed the erection of several mills during the year, but shortage of staff has restricted its activities. The amount received in fees during the year showed a substantial increase over the previous year, an indication that the engineering services of the department are being increasingly appreciated by the smaller industries of the province. The power plant of the Government Match Factory at Patna was sold during the year and the affairs of the factory were finally wound up.

The Board of Industries held three meetings, in the course of which, among other business, it considered several applications for State aid, all of which were subjected to careful scrutiny. The need for such scrutiny has been all the more apparent since the failure of the Indian Steel Wire Products, Ltd. This Company, after being granted over three years ago a loan of Rs. 5 lakhs in the shape of debentures, had to close down recently, with a resultant loss to Government which has finally been calculated at over Rs. 2.74 lakhs.

The fisheries branch of the department continued to carry out experiments in fish-culture, and the distribution of carp-fry from the two centres maintained at Ghatsila and Patna increased considerably. The scientific study of pisciculture has been encouraged by the grant of a scholarship for the training of one student at the Fishery Training Institute at Calicut in Madras for one year.

Mines.

There has been a gradual improvement in the coal trade during the year, which closed on a note of optimism. Prices were somewhat higher and are expected to advance still further during 1930. Labour was scarce towards the end of the year owing to the excellence of the rice harvest in areas adjacent to the coalfields. The number of coal-mines worked during the year was 339. There was a small increase in the output of coal, mainly due to increases in the Bokaro and Karanpura coalfields in the district of Hazaribagh where the proximity of the coal seams to the surface facilitates production. Under the orders of the Government of India a reform of considerable magnitude, involving the gradual elimination of female labour from underground mines, was introduced during the year. The employment of women in the underground workings of mines other than coal-mines in Bengal, Bihar and Orissa, and the Central Provinces has been prohibited, with effect from the 1st of July. In the coal-mines of those provinces, the number of women employed underground may not exceed 29 per cent of the total number of workers, a percentage which will be reduced by three every year for ten years, when the process of elimination will be complete.

The number of mines other than coal worked during the year was as follows:—Mica 422; stone 72; manganese 12; limestone 10; clay 7; iron-ore 6; slate 5; chromite 4; sandstone 4; steatite 4; kyanite 2; gold, copper and apatite one each. There was a large decrease in the number of mica mines. Within the space of one year, the number has fallen from 609 to 422 and the industry is in an unsatisfactory condition. A Bill to regulate the possession, transport, purchase and sale of mica was introduced by Government in the Legislative Council during the year and has been referred to a select committee.

The number of accidents in mines during the year was 401, of which 101 were fatal. The number of persons killed was 126 and of persons injured 311, against 141 killed and 312 injured

last year. In four of the accidents, the casualties were heavy. At Jharia, a subsidence of old workings resulted in four persons on the surface being killed and four injured; in the Giridih coalfields, there were two serious accidents by falls of roof, in one of which five persons and in the other four, were killed; and at a colliery in the Bokaro coalfield a sudden outburst of gas, which was ignited by open lights in use, resulted in six persons being killed and three injured.

APPENDIX II.

A.—MEMBERS OF THE BIHAR AND ORISSA EXECUTIVE COUNCIL.

His Excellency Sir Hugh Lansdown Stephenson, K.C.S.I., K.C.I.E., I.C.S.

The Hon'ble Mr. James David Sifton, C.S.I., C.I.E., I.C.S.

The Hon'ble Raja Rajendra Narayan Bhanja Deo, O.B.E.

B.—MINISTERS.

Ministry of Education: The Hon'ble Sir Saiyid Muhammad Fakhr-ud-din, Khan Bahadur, Kt.

Ministry of Local Self-Government: The Hon'ble Sir Ganesh Datta Singh, Kt.

C.—THE BIHAR AND ORISSA LEGISLATIVE COUNCIL.

The Hon'ble Khan Bahadur Khwaja Muhammad Nur, C.B.E.—President.

Mr. John Augustus Samuel, Bar.-at-Law.—Secretary.

Mr. Saiyid Anwar Yusoof, Bar.-at-Law.—Assistant Secretary.

EX-OFFICIO MEMBERS. (2)

The Hon'ble Mr. James David Sifton, C.S.I., C.I.E., I.C.S.

The Hon'ble Raja Rajendra Narayan Bhanja Deo., O.B.E.

NOMINATED OFFICIALS. (15)

Mr. Patrick William Murphy, I.C.S.

Mr. Hugh Kynaston Briscoe, C.I.E., I.C.S.

Mr. Philip Cubitt Tallents, I.C.S.

Mr. Godfrey Elwin Owen, I.C.S.

Mr. Eric Cecil Ansorge, I.C.S.

Mr. Robert Edwin Russell, I.C.S.

Mr. Walter Swain, C.I.E.

Mr. Ernest Leslie Glass.

Mr. James Augustine Sweeney, I.C.S.

Mr. George Ernest Fawcus, C.I.E., O.B.E.

Col. William Southwick Willmore.

Mr. Bryce Chudleigh Burt.

Mr. Henry Abraham Gubbay.

Mr. John Austen Hubback, I.C.S. (special).

Mr. Pran Krishna Parija (special).

NOMINATED NON-OFFICIALS. (5)

Raja Devakinandan Prashad Singh.

Diwan Bahadur Sri Krishna Mahapatra.

Khan Bahadur Shah Muhammad Yahya.

Mr. John Podger (special).

Sir Saiyid Sultan Ahmad, Kt. (special).

NOMINATED REPRESENTATIVES OF CLASSES AND COMMUNITIES. (9)

	CONSTITUENCIES.
Rev. Thomas Lenman	Aborigines.
Rev Pritam Luther Singh ...	
Rev. Brajananda Das	The Depressed Classes.
Rev. Emanuel Sukh	
Rai Bahadur Bansidhar Dhandhania	Industrial interests other than planting and mining.
Rai Bahadur Kalipada Sarkar ...	The Domiciled Bengali Community.
Mr. Alfred Eustace D'Silva ...	The Anglo-Indian Community.
Mr. Sorab Solomon Day ...	The Indian Christian Community.
Rai Sahib Harendra Nath Banarji ...	The Labouring classes.

ELECTED MEMBERS. (76)

Patna Division. (16)

	CONSTITUENCIES.
Mr. Saiyid Abdul Aziz	Patna Division Muhammadan Urban.
Khan Bahadur Saiyid Muhammad Husain.	East Patna Muhammadan Rural.
The Hon'ble Sir Saiyid Muhammad Fakhr-ud-din, Khan Bahadur, Kt.	West Patna Muhammadan Rural.
Babu Jagat Narayan Lal ...	Patna Division Non-Muhammadan Urban.
Babu Rai Brij Raj Krishna ...	Patna Non-Muhammadan Urban.
Babu Gur Sahay Lal	East Patna Non-Muhammadan Rural
Babu Rajandhari Sinha ...	West Patna Non-Muhammadan Rural.
Raja Bahadur Harihar Prashad Narayan Singh, O.B.E.	Landholders', Patna Division.
Maulavi Qazi Ahmad Husain ...	Gaya Muhammadan Rural.
Mr. Rajkishore Lal	West Gaya Non-Muhammadan Rural

	CONSTITUENCIES.
Babu Bhagwati Sharan Singh ...	Central Gaya Non-Muhammadan Rural.
The Hon'ble Sir Ganesh Datta Singh, Kt.	East Gaya Non-Muhammadan Rural.
Mr. Saiyid Muhammad Athar Husain.	Shahabad Muhammadan Rural.
Pandit Dudhnath Pande ...	Central Shahabad Non-Muhammadan Rural.
Babu Keshari Prashad Singh ...	South Shahabad Non-Muhammadan Rural.
Babu Sidheshvari Prashad ...	Arrah Non-Muhammadan Rural.
Tirhut Division. (19)	
Maulavi Abdul Ghani	Tirhut Division Muhammadan Urban.
Maulavi Muhammad Ishaq ...	Muzaffarpur Muhammadan Rural.
Maulavi Abdul Hamid Khan ...	Darbhanga Muhammadan Rural.
Maulavi Saiyid Mubarak Ali Sahib	Saran Muhammadan Rural.
Khan Bahadur Muhammad Jan ...	Champaran Muhammadan Rural.
Rai Bahadur Dvarika Nath ...	Tirhut Division Non-Muhammadan Urban.
Mahanth Ishvar Gir	North-West Darbhanga Non-Muhammadan Rural.
Babu Shiva Shankar Jha ...	North-East Darbhanga Non-Muhammadan Rural.
Babu Girindra Mohan Misra ...	South-East Darbhanga Non-Muhammadan Rural.
Babu Satya Narayan Singh ...	Samastipur Non-Muhammadan Rural.
Thakur Ramnandan Sinha ...	North Muzaffarpur Non-Muhammadan Rural.
Babu Ramdayalu Sinha ...	East Muzaffarpur Non-Muhammadan Rural.
Babu Badri Narayan Singh ...	West Muzaffarpur Non-Muhammadan Rural.
Babu Dip Narayan Sinha ...	Hajipur Non-Muhammadan Rural.
Babu Srinandan Prashad Narayan Singh Sharma.	North Saran Non-Muhammadan Rural.
Babu Nirsu Narayan Sinha ...	South Saran Non-Muhammadan Rural.
Babu Harivans Sahay	North Champaran Non-Muhammadan Rural.
Babu Rameshvar Prashad Datta ...	South Champaran Non-Muhammadan Rural.
Babu Chandreshvar Prashad Narayan Sinha.	Landholders', Tirhut Division.

Bhagalpur Division. (17)

	CONSTITUENCIES.	
Khan Bahadur Abdul Wahhab Khan	Bhagalpur Division Urban.	Muhammadan
Maulavi Alauddin Ahmad ...	Bhagalpur	Muhammadan Rural.
Chaudhuri Muhammad Nazirul Hasan.	Monghyr	Muhammadan Rural.
Maulavi Haji Muhammad Bux Chaudhuri.	Purnea	Muhammadan Rural.
Mr. Saiyid Moinuddin Mirza ...	Kishanganj	Muhammadan Rural.
Maulavi Abdul Bari	Santal Parganas	Muhammadan Rural.
Babu Rameshvar Narayan Agarwal	Bhagalpur Division Urban.	Non-Muhammadan
Babu Rajendra Misra	North Bhagalpur Rural.	Non-Muhammadan
Rai Bahadur Lakshmi Narayan Singh.	Central Bhagalpur Rural.	Non-Muhammadan
Babu Kailash Bihari Lal ...	South Bhagalpur Rural.	Non-Muhammadan
Babu Kalika Prashad Singh ...	South-West Monghyr Rural.	Non-Muhammadan
Babu Ram Charitra Singh ...	North-West Monghyr Rural.	Non-Muhammadan
Babu Sri Krishna Sinha ...	East Monghyr Rural.	Non-Muhammadan
Rai Bahadur Prithi Chand Lal Chaudhuri.	Purnea	Non-Muhammadan Rural.
Babu Pratapendra Chandra Pande ...	Santal Parganas North	Non-Muhammadan Rural.
Babu Rameshvar Lal Marwari ...	Santal Parganas South	Non-Muhammadan Rural.
Rai Bahadur Dalip Narayan Singh ...	Landholders', Bhagalpur Division.	

Orissa Division. (10)

Maulavi Saiyid Muhammad Nurul Huda.	Orissa Division	Muhammadan Rural.
Rai Sahib Lokenath Misra ...	Orissa Division Urban.	Non-Muhammadan
Babu Narayan Birbar Samanta ...	North Cuttack Rural.	Non-Muhammadan
Babu Lakshmidhar Mahanti ...	South Cuttack Rural.	Non-Muhammadan

	Constituencies.
Babu Nand Kishore Das ...	North Balasore Non-Muhammadan Rural.
Chaudhari Bhagwat Prashad Samantarai Mahapatra.	South Balasore Non-Muhammadan Rural.
Babu Godavaris Misra	North Puri Non-Muhammadan Rural.
Babu Lingaraj Misra	South Puri Non-Muhammadan Rural.
Babu Braja Mohan Panda ...	Sambalpur Non-Muhammadan Rural.
Raja Rajendra Narayan Bhanja Deo, O.B.E.	Landholders', Orissa Division.

Chota Nagpur Division. (9)

Khan Bahadur Khwaja Muhammad Nur, C.B.E.	Chota Nagpur Division Muhammadan Rural.
Mr. Jimut Bahan Sen	Chota Nagpur Division Non-Muhammadan Urban.
Rai Bahadur Sharat Chandra Ray ...	Ranchi Non-Muhammadan Rural.
Babu Krishna Ballabh Sahay ...	Hazaribagh Non-Muhammadan Rural.
Babu Devaki Prashad Sinha ...	Palamau Non-Muhammadan Rural.
Babu Nilkantha Chattarji ...	South Manbhum Non-Muhammadan Rural.
Babu Devendra Nath Samanta ...	Singhbhum Non-Muhammadan Rural.
Babu Gunendra Nath Ray ...	North Manbhum Non-Muhammadan Rural.
Bhaiya Rajkishore Deo	Landholders', Chota Nagpur Division.

Others. (5)

Babu Baldeva Sahay	Patna University.
Lt.-Col. Daniel Douglas ...	European Constituency.
Mr. Edward Joseph Finch ...	Planting Constituency.
Mr. Edward Smedley Tarlton ...	Indian Mining Association.
Mr. Amrit Lal Ojha	Indian Mining Federation.

D.—MEMBERS OF THE COUNCIL OF STATE FROM BIHAR AND ORISSA.

NOMINATED. (1)

The Hon'ble Mr. Donald Weston, I.C.S.

ELECTED. (4)

	Constituencies.
The Hon'ble Maharajadhiraja Sir Rameshwar Singh, G.C.I.E., K.B.E., of Darbhanga.	Bihar and Orissa (Non-Muhammadan).
The Hon'ble Mr. Anugrah Narayan Sinha ...	
The Hon'ble Mr. Mahendra Prashad ...	
The Hon'ble Shah Muhammad Zubair ...	Bihar and Orissa (Muhammadan).

E.—MEMBERS OF THE LEGISLATIVE ASSEMBLY FROM BIHAR AND ORISSA.

NOMINATED. (2)

Rai Bahadur Shyam Narayan Singh, C.B.E. (*Official*).

Khan Bahadur Nawabzada Saiyid Ashraf-ud-din Ahmad, C.I.E. (*Non-official*).

ELECTED. (12)

	CONSTITUENCIES.
Khan Bahadur Sarfaraz Husain Khan.	Patna and Chota Nagpur *Cum* Orissa (Muhammadan).
Raja Raghunandan Prashad Singh	Bihar and Orissa (Landholders).
Maulavi Badi-uz-zaman ...	Bhagalpur Division (Muhammadan).
Maulavi Muhammad Shafee ...	Tirhut Division (Muhammadan).
Mr. Narayan Prashad Singh ...	Darbhanga *Cum* Saran (Non-Muhammadan).
Mr. Gaya Prashad Singh ...	Muzaffarpur *Cum* Champaran (Non-Muhammadan).
Pandit Nilakantha Das ...	Orissa Division (Non-Muhammadan).
Mr. Bhubanananda Das ...	Orissa Division (Non-Muhammadan).
Mr. Rajivaranjan Prashad Sinha ...	Patna *Cum* Shahabad (Non-Muhammadan).
Mr. Siddhesvar Sinha	Gaya *Cum* Monghyr (Non-Muhammadan).
Babu Ganganand Sinha ...	Bhagalpur, Purnea and the Santal Parganas (Non-Muhammadan).
Mr. Ram Narayan Singh ...	Chota Nagpur Division (Non-Muhammadan).

APPENDIX III.

ABSTRACT OF THE BUDGET ESTIMATES FOR 1929-30.

[IN THOUSANDS OF RUPEES.]

Revenue and Receipts.	Budget Estimate, 1929-30.	Revised Estimate, 1928-29.	Budget Estimate 1928-29.
1	2	3	4
II.—Taxes on Income	3,15	3,15	3,34
V.—Land Revenue	1,75,40	1,73,66	1,71,08
VI.—Excise	1,90,45	1,92,00	1,95,50
VII.—Stamps	1,10,50	1,11,50	1,09,25
VIII.—Forest	11,20	10,66	10,39
IX.—Registration	17,60	17,25	17,00
XIII.—Irrigation, Navigation, Embankment and Drainage Works for which capital accounts are kept.	17,11	16,32	19,69
XIV.—Irrigation, Navigation, Embankment and Drainage works for which no capital accounts are kept.	1,08	1,15	1,05
XVI.—Interest	6,91	7,05	6,47
XVII.—Administration of Justice	5,54	5,55	5,14
XVIII.—Jails and Convict Settlements	6,93	7,17	6,96
XIX.—Police	1,84	1,74	1,72
XX.—Ports and Pilotage	...	...	...
XXI.—Education	6,86	6,96	6,47
XXII.—Medical	1,84	1,85	1,87
XXIII.—Public Health	1,01	98	79
XXIV.—Agriculture	2,84	2,66	2,72
XXV.—Industries	2,07	2,39	2,42
XXVI.—Miscellaneous Departments	2	3	2
XXX.—Civil Works	6,57	5,82	5,30
XXXII.—Transfers from Famine Relief Fund	6,00	...	...
XXXIII.—Receipts in aid of Superannuation	1,21	1,62	1,16
XXXIV.—Stationery and Printing	2,45	1,00	1,00
XXXV.—Miscellaneous	3,61	4,30	4,13
XXXIXA.—Miscellaneous adjustments between the Central and Provincial Governments.	...	...	...
XL.—Extraordinary Receipts	...	...	...
TOTAL REVENUE ...	5,84,81	5,74,81	5,74,37
Loans and Advances by the Provincial Government (Recoveries).	11,08	23,70	8,56
Advances from the Provincial Loans Fund ...	...	...	...
Transfers from Famine Relief Fund	16,39	15,71	...
Famine Relief Fund	3,99	2,39	12,57
Appropriation for reduction or avoidance of debt ...	45	...	...
Suspense	3,25	3,38	2,75
TOTAL RECEIPTS ...	6,19,97	6,18,99	5,98,25
Opening Balance	(b)1,60,72	(a)1,80,40	1,65,51
GRAND TOTAL ...	7,80,69	7,99,39	7,63,76

(a) Includes 70,42 in Famine Relief Fund.

(b) Includes 57,10 in Famine Relief Fund.

APPENDIX III—*concld.*

ABSTRACT OF THE BUDGET ESTIMATES FOR 1929-30.

[IN THOUSANDS OF RUPEES.]

Expenditure.	Budget Estimate, 1929-30.	Revised Estimate, 1928-29.	Budget Estimate, 1928-29.
5.—Land Revenue	26,41	28,32	28,28
6.—Excise	18,85	18,26	18,50
7.—Stamps	2,69	3,22	3,12
8.—Forest	8,39	7,89	7,93
8A.—Forest Capital outlay charged to revenue	1,66	1,42	1,36
9.—Registration...	6,69	6,34	6,48
14.—Interest on Irrigation Works for which capital accounts are kept.	20,46	20,41	20,45
15.—Irrigation Revenue Account—Other Revenue expenditure financed from ordinary revenue.	2,26	4,61	4,80
15 (1).—Other revenue expenditure financed from famine insurance grants.	...	...	...
16.—Irrigation Capital Account—Construction of Irrigation, Embankment and Drainage Works.	1	5	5
19.—Interest on Ordinary Debt	98	1,29	1,33
20.—Interest on other obligations	43	...	...
21.—Appropriation for reduction or avoidance of debt ...	45	...	...
22.—General Administration	75,26	73,70	72,37
24.—Administration of Justice	41,49	41,98	39,33
25.—Jails and Convict Settlements	20,98	21,43	21,36
26.—Police	84,88	83,07	84,44
27.—Ports and Pilotage	...	...	1
30.—Scientific Departments	44	47	45
31.—Education	92,12	87,53	87,60
32.—Medical	30,47	28,61	29,71
33.—Public Health	23,24	15,38	15,56
34.—Agriculture	16,78	15,33	15,03
35.—Industries	11,40	10,24	10,50
37.—Miscellaneous Departments	49	43	38
41.—Civil Works	83,45	78,85	79,47
43.—Famine	1,00	32	1,00
45.—Superannuation Allowances and Pensions	27,62	28,20	24,77
45A.—Commutation of pensions financed from ordinary revenue.	2,00	1,53	55
46.—Stationery and Printing	9,63	8,68	8,83
47.—Miscellaneous	1,84	4,15	4,30
51.—Contributions to the Central Government by the Provincial Government.	...	...	...
51A.—Miscellaneous adjustments between the Central and Provincial Governments.	...	...	...
Total—Expenditure charged to Revenue ...	6,12,37	5,92,60	5,87,96
Commuted value of Pensions	—13	—12	—12
Loans and advances by the Provincial Government ...	19,00	14,28	5,17
Advances from the Provincial Loans Fund (Repayments) ...	45	13,64	7,64
Transfers from Famine Relief Fund (Repayments) ...	1,98	...	...
Famine Relief Fund	24,39	15,71	5,98
Suspense	3,45	3,56	2,75
Total—Expenditure not charged to Revenue ...	49,14	46,07	21,42
Reserve for unforeseen	7,47	...	3,00
Total—Expenditure ...	6,68,98	6,38,67	6,12,38
Closing Balance	(c)1,11,71	(b)1,00,72	(a)1,51,38
Grand total ...	7,80,69	7,99,39	7,63,76
Provincial { Surplus	...	...	...
Provincial { Deficit	49,01	19,08	14,13

(a) Includes 75,09 in Famine Relief Fund.

(b) Includes 57,10 in Famine Relief Fund. (The latest departmental estimates indicate a probable increase of Rs. 1,66—including Rs 1,51 on account of Famine Relief Fund—in this figure.)

(c) Includes 36,70 in Famine Relief Fund.

APPENDIX IV.

Speech delivered by His Excellency Sir Hugh Lansdown Stephenson, K.C.S.I., K.C.I.E., I.C.S., at the Police Parade held at Patna on the 31st January 1929.

OFFICERS AND MEN OF THE BIHAR AND ORISSA POLICE,

This is the second occasion on which I have attended the Police Parade in Patna which, I trust, has now become an annual fixture and which we have endeavoured to make even more representative this year. I want first of all to congratulate those members of the Force and the other individuals to whom I have just handed rewards. The occasions for these rewards have been read out by the Inspector-General. They cover as wide a field as ever and the one common link between them all is devotion to duty and to the service of the public. I do not regard these presents as rewards proportioned to the value of services rendered: to do so would be to rob these services of half their real meaning. I regard these rewards as a recognition by Government on behalf of the public of the high ideals of duty and service underlying the actions commemorated. We are proud of these ideals and we are proud of the Force that can produce men who will act upon them. I had hoped to be privileged to-day to hand over personally the bar to the Police Medal awarded by His Majesty, the King, to the late Mr. Guise for conduct which is striking illustration of the high ideals of courage and devotion to which I have referred. Mr. Guise had been awarded the King's Police Medal in 1925 in recognition of his conspicuous gallantry during the floods at Arrah. In the following year during the serious communal disturbances in the Sasaram subdivision, Mr. Guise received information that an armed mob of between two and three hundred Hindus were on their way to attack Sasaram town. He proceeded to the spot accompanied only by two orderlies and found the mob advancing and a Muhammadan crowd collecting to offer resistance. Mr. Guise unarmed threw himself in the path of the advancing mob and attacked the leaders though they were armed with bludgeons. After he had knocked two of them out, the crowd retreated. There is no doubt that Mr. Guise by his action prevented an attack on Sasaram which would have led to widespread rioting, looting and loss of life. Mr. Guise died as the result of an accident on parade before his gallantry could be suitably recognized and our pride in his achievement is tempered by our sorrow at his loss.

I said last year that the main function of the Governor's speech at the Police Parade was to assist us all in a periodical stock-taking. The year that has since elapsed has brought no peace to the police force; it is true that we have escaped those serious communal riots that disgraced the previous year, but this is in no small measure due to the completeness of the police precautions and their unwearied vigilance. The strain on the police has been no less; we are still living on the edge of a volcano and every religious festival is an occasion of fear rather than of rejoicing. The Force has maintained its reputation for courageous impartiality in dealing with communal troubles and I have been much gratified at the letters of thanks sent to the

Inspector-General by religious leaders testifying to the tact, forbearance and practical common-sense of our police officers of both communities.

But if communal troubles have been less insistent, it has been brought home to us by the labour troubles at Jamshedpur that modern conditions are ever increasing the burden on the police force and that that force must be constantly adapted to meet the needs of changing circumstances. A disquietingly large proportion of our reserves had to be mobilised to meet the situation at one large centre of industry. The anxieties of Government were thereby increased and the strain on the police, officers and men, throughout the province was tightened. The forces who were actually employed at Jamshedpur were tried very highly; for over four months, in the hot weather and rains, they were on duty without relaxation in an atmosphere that was often electric and always uncertain. It has been said with a considerable amount of truth that employment on strike duty is one of the most unpleasant tasks that falls to the lot of the police. They have no concern with the rights or wrongs of the dispute; they must not be actuated by sympathy with either side. It is their lot impartially to enforce the law and maintain peace. If they are successful, and the strike, as in this case, drags on, there is a wearisome monotonous round of unpleasant duties in uncomfortable circumstances with no flashes of excitement to break the routine. Their duties call for firmness, tact and forbearance and it speaks volumes for the Bihar and Orissa Police that their conduct during these trying months has won the praise not only of their officers but of both parties to the dispute.

During the year the police had to deal with the visit of His Excellency the Viceroy to Ranchi and to Patna and the visit of the Statutory Commission; no one who has not seen the detailed orders drawn up on these and similar occasions, welcome as they are to the province in other respects, can have any idea of the enormous amount of work that is thrown upon the police. And it is work that tests the disciplinary training of the police very highly. Anyone who has watched the police as I have for 33 years must be struck by the improvement in their method of controlling crowds and this is perhaps an index of the increased respect in which the police force is held not only by the public but by themselves. A crowd must submit itself to discipline or there will be chaos ending in disaster which it is the responsibility of the police to prevent. The orders of the responsible officers for the regulation of crowds must therefore be firmly enforced in the interests of the crowds themselves. But good temper, forbearance and good humour in the police employed to carry out these orders are as valuable weapons as the *lathis* they may carry, and the fact that the three occasions I have mentioned passed off without a hitch is a valuable testimony both to the qualities of the force and to the respect they have instilled into the public.

In other respects I think the record of the past year shows steady progress. Last year I gave some general details of police work in the last few years and commented on some aspects of that work and I do not propose to repeat myself. Taking a general survey of the position, the police force has still many needs unfilled; it is still too small, still lags behind in equipment, buildings, in many other things that are necessary for an efficient modern police. We must have a detective training school, we must have traffic police, effective methods of dealing with fires and a dozen other things before we can claim to be up-to-date. But there is also a brighter side; I have every confidence that the Legislative Council will give to the police for non-recurring expenditure on buildings its proper share of the money that

we propose to make available in the coming budget and will sympathetically consider any other proposal we are able to make for the improvement of the force. Steadily, if slowly, recognition is coming of the essential position that the police must hold under any Government. The relations between the police and the public continue to improve and the value of the police work is more and more admitted. There are more applications for the assistance of the Criminal Investigation Department by the public than can be dealt with, and the position that this department has built up for itself in the public estimation may be illustrated by a recent judgment of the Hon'ble High Court which I quote with pride:—

"I desire in conclusion to express the opinion that the skill, energy and industry of the police, exhibited in the unravelling of this conspiracy, are worthy of the highest praise, and it would appear that a great share of this praise should be awarded to Mr. Daff, the Special Assistant to the Deputy Inspector-General. It is worthy of note that the learned advocates who presented the case for the appellants were unable to criticise or make any attack upon the activity of the police or on the evidence furnished by them other than by legitimate argument as to its admissibility or cogency."

The subject of corruption in the police has been rather prominent recently in the evidence before the Statutory Commission. In my 33 years of service, I have seen a great improvement even in this matter in the police. I believe there has been an awakening of the police conscience; it cannot be denied that corruption still exists in the lower ranks, but I claim that it is no longer regarded as the right and proper thing to take bribes. It only needs a vigorous effort on the part of all of you to get rid of the stigma; Government will do its part both in punishment and reward, but a reform of this kind can only come from the inside. Black sheep there are and always will be in every force whether in this country or in any other but as long as there is the slightest justification for a public feeling that any policeman may be corrupt you will never attain the position that the force is entitled to in the respect of the public and of yourselves.

As to the future you can rely on Government to appreciate your good work, to understand your difficulties and to improve your position whenever possible. There has been much talk in the last year of the future of the police and many diverse opinions have been expressed as to the immediate effect of any constitutional changes on the well-being of the force. I do not propose to discuss these or give any opinion of my own. I will only say this that in any form of Government that is to be stable and for the good of the people, there must be provision for a well-disciplined, contented and efficient police force and any constitution that cannot ensure this must fail. Mutual confidence between Government and the police and the public and the police is essential to the fullest development of such a force. This confidence cannot be built up in a day nor can it be based on *a priori* arguments; it is a question of feeling and must be born of experience. I have appealed to you to help to remove what I think is a great obstacle to the establishment of confidence of the public in you; in turn I appeal to the public and in especial to those who claim to lead the public and who look forward to taking a larger share in the governance of the country to prove to the police that whatever may come they can rely on support in the efficient carrying out of their duties, on fair and just treatment in all circumstances and perhaps above all on a sympathetic understanding of their difficulties.

APPENDIX V.

Sources of Information Available to the Public.

Chapter II.—Finance.

Financial statements for Bihar and Orissa 1928-29 and 1929-30.

Debates in the Legislative Council on the budgets for 1928-29 and 1929-30.

Chapter III.—The Legislative Council.

Proceedings of the Bihar and Orissa Legislative Council, Volumes XVIII. XIX and XX.

Chapter IV.—Local Self-Government.

Resolutions reviewing the reports on the working of district boards and municipalities in 1928-29.

Chapter V.—Education.

Report on the Progress of Education in Bihar and Orissa for 1928-29.

Chapter VI.—Public Health and Medical.

Annual Returns of Hospitals and Dispensaries for 1928.

Annual Public Health Report for 1928.

Annual Report on the working of the Radium Institute for 1928.

Reports on the workings of the Indian and European Mental Hospitals for 1928.

Report of the Prince of Wales Medical College for 1928-29.

Chapter VII.—Maintenance of Public Peace and Administration of Justice.

Annual Report on the Administration of the Police Department for 1928.

Administration Report on Jails for 1928.

Report on the Administration of Civil Justice for 1928.

Report on the Administration of Criminal Justice for 1928.

Chapter VIII.—Excise.

Report on the Administration of the Excise Department for 1928-29.

Chapter IX.—Government and the land.

Report on Land Revenue Administration for 1928-29.

Report on Wards, Trust and Encumbered Estates for 1928-29.

Annual Progress Report on the Forest Administration for 1928-29.

Chapter X.—Agriculture.

Annual Report of the Agricultural Department for 1928.

Annual Report of the Civil Veterinary Department for 1928-29.

Report on the working of Co-operative Societies, Bihar and Orissa, for 1928.

Season and Crop Report for 1928-29.

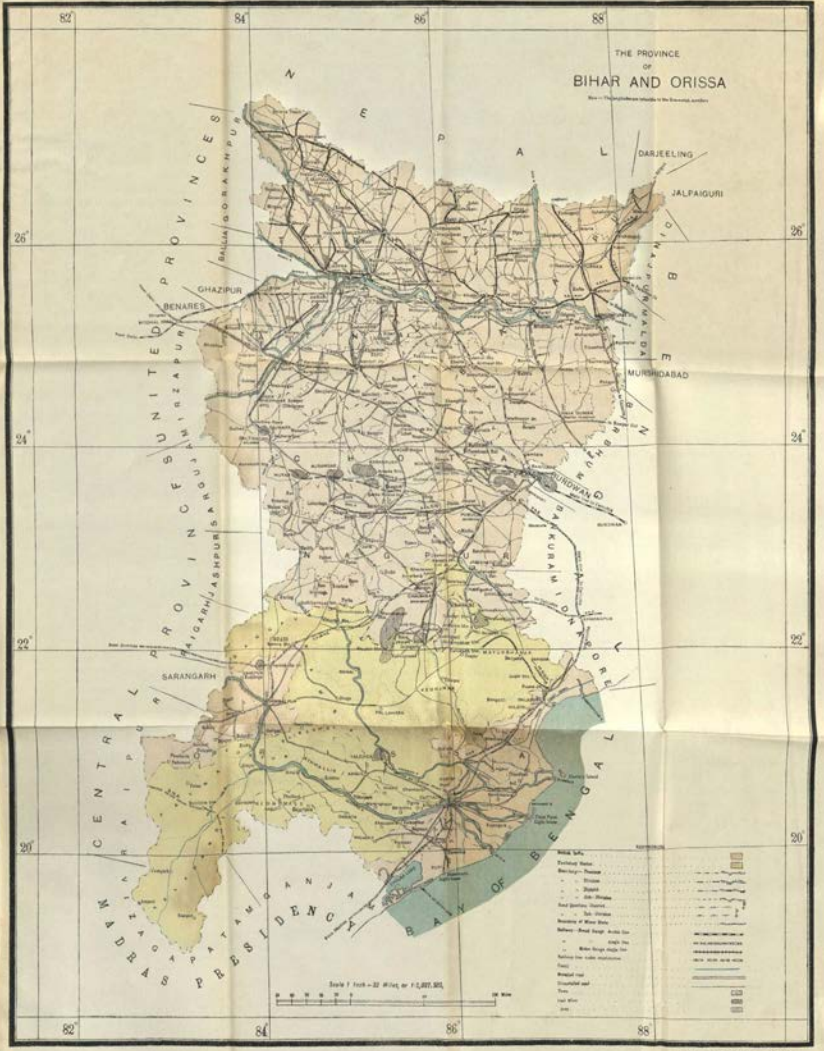
Chapter XI.—Commerce and Industry.

Annual Report of the Director of Industries for 1928-29.

Report of the Chief Inspector of Mines in India for 1928.

Annual Report on the working of the Indian Factories Act in Bihar and Orissa for 1928.

Review of the Trade of India for 1928-29.


THE PROVINCE
OF
BIHAR AND ORISSA
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JALPAIGURI
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MURSHIDABAD
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SARANGARH
BAY OF BENGAL
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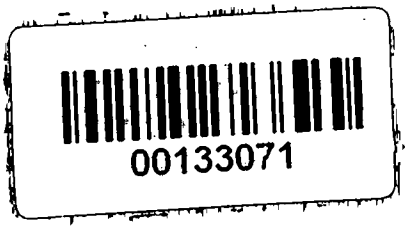
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